STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 3
AMENDED REPORT ☐

APPLICATION FOR PERMIT TO DRILL	
	1. WELL NAME and NUMBER NBU 1021-12B4BS
2. TYPE OF WORK DRILL NEW WELL ◉ REENTER P&A WELL ○ DEEPEN WELL ○	**3. FIELD OR WILDCAT** NATURAL BUTTES
4. TYPE OF WELL Gas Well Coalbed Methane Well: NO	**5. UNIT or COMMUNITIZATION AGREEMENT NAME** NATURAL BUTTES
6. NAME OF OPERATOR KERR-MCGEE OIL & GAS ONSHORE, L.P.	**7. OPERATOR PHONE** 307-752-1169
8. ADDRESS OF OPERATOR P.O. Box 173779, Denver, CO, 80217	**9. OPERATOR E-MAIL** Laura.Gianakos@anadarko.com
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) ML 23612	**11. MINERAL OWNERSHIP** FEDERAL ○ INDIAN ○ STATE ◉ FEE ○
	12. SURFACE OWNERSHIP FEDERAL ○ INDIAN ○ STATE ◉ FEE ○
13. NAME OF SURFACE OWNER (if box 12 = 'fee')	**14. SURFACE OWNER PHONE (if box 12 = 'fee')**
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')	**16. SURFACE OWNER E-MAIL (if box 12 = 'fee')**
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')	**18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS** YES ◉ (Submit Commingling Application) NO ○
	19. SLANT VERTICAL ○ DIRECTIONAL ◉ HORIZONTAL ○

20. LOCATION OF WELL	FOOTAGES	QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN
LOCATION AT SURFACE	336 FSL 2422 FEL	SWSE	1	10.0 S	21.0 E	S
Top of Uppermost Producing Zone	897 FNL 1747 FEL	NWNE	12	10.0 S	21.0 E	S
At Total Depth	897 FNL 1747 FEL	NWNE	12	10.0 S	21.0 E	S

21. COUNTY UINTAH	**22. DISTANCE TO NEAREST LEASE LINE (Feet)** 897	**23. NUMBER OF ACRES IN DRILLING UNIT** 571
	25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 1000	**26. PROPOSED DEPTH** MD: 9616 TVD: 9385
27. ELEVATION - GROUND LEVEL 5224	**28. BOND NUMBER** 22013542	**29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE** Permit #43-8496

ATTACHMENTS

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES

☑ **WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER**	☑ **COMPLETE DRILLING PLAN**
☐ **AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)**	☐ **FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER**
☑ **DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)**	☑ **TOPOGRAPHICAL MAP**

NAME Danielle Piernot	**TITLE** Regulatory Analyst	**PHONE** 720 929-6156
SIGNATURE	**DATE** 12/18/2009	**EMAIL** gnbregulatory@anadarko.com

API NUMBER ASSIGNED
43047508570000

APPROVAL

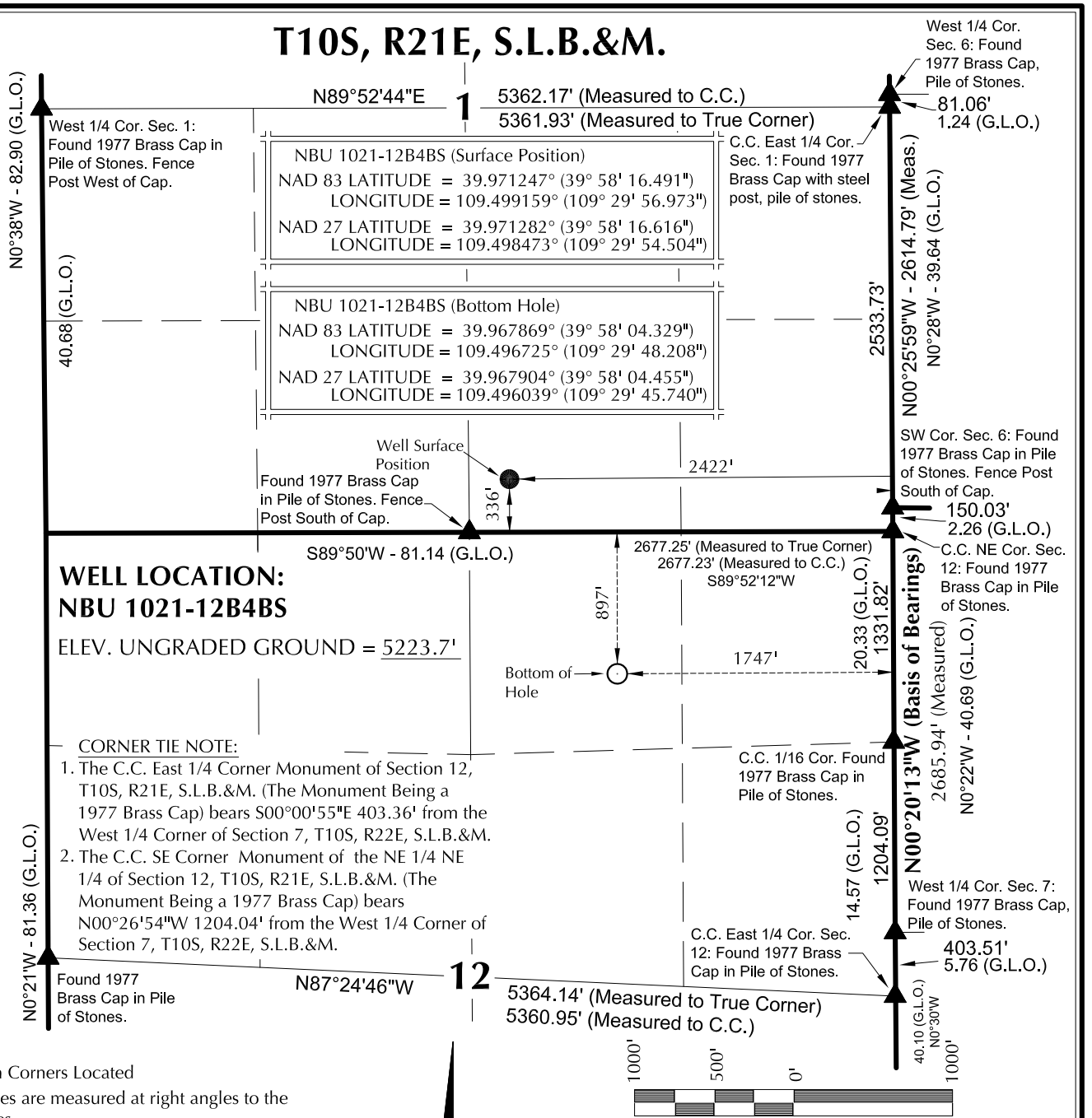
Permit Manager

Proposed Hole, Casing, and Cement						
String	**Hole Size**	**Casing Size**	**Top (MD)**	**Bottom (MD)**		
Prod	7.875	4.5	0	9616		
Pipe	**Grade**	**Length**	**Weight**			
	Grade I-80 Buttress	9616	11.6			

Proposed Hole, Casing, and Cement						
String	**Hole Size**	**Casing Size**	**Top (MD)**	**Bottom (MD)**		
Surf	11	8.625	0	2225		
Pipe	**Grade**	**Length**	**Weight**			
	Grade I-80 LT&C	2225	28.0			

'APIWellNo:43047508570000'

T10S, R21E, S.L.B.&M.



SCALE

NOTES:

▲ = Section Corners Located

1. Well footages are measured at right angles to the Section Lines.
2. G.L.O. distances are shown in feet or chains. 1 chain = 66 feet.
3. The Bottom of hole bears S28°59'15"E 1407.51' from the Surface Position.
4. Bearings are based on Global Positioning Satellite observations.
5. Basis of elevation is Tri-Sta "Two Water" located in the NW ¼ of Section 1, T10S, R21E, S.L.B.&M. The elevation of this Tri-Sta is shown on the Big Pack Mtn NE 7.5 Min. Quadrangle as being 5238'.

SURVEYOR'S CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR
REGISTRATION NO. 362251
STATE OF UTAH

REGISTERED LAND SURVEYOR No. 362251 KOLBY R. KAY STATE OF UTAH

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 1021-01O

NBU 1021-12B4BS
WELL PLAT
897' FNL, 1747' FEL (Bottom Hole)
NW ¼ NE ¼ OF SECTION 12, T10S, R21E, S.L.B.&M., UINTAH COUNTY, UTAH.

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 06-24-09	SURVEYED BY: D.J.S.	SHEET NO: 4
DATE DRAWN: 06-25-09	DRAWN BY: M.W.W.	
SCALE: 1" = 1000'	Date Last Revised:	4 OF 13

ANADARKO PETROLEUM CORP.

UINTAH COUNTY, UTAH (nad 27)
NBU 1021-1O Pad
NBU 1021-12B4BS

NBU 1021-12B4BS

Plan: PLAN #1 11-19-09 RHS

Standard Planning Report

19 November, 2009

'APIWellNo:43047508570000'

Anadarko E&P Company LP

NBU 1021-12B4BS
UINTAH COUNTY, UTAH (nad 27)
336 FSL 2422 FEL
SECTION 1 T10S R21E
LAT: 39° 58' 16.615 N
LONG: 109° 29' 54.503 W

Weatherford

T M

Azimuths to True North
Magnetic North: 11.30°

Magnetic Field
Strength: 52478.0snT
Dip Angle: 65.90°
Date: 11/19/2009
Model: BGGM2009

WELL DETAILS: NBU 1021-12B4BS

Ground Level: 5221.00

+N/-S	+E/-W	Northing	Easting	Latittude	Longitude	Slot
0.00	0.00	14519128.93	2061116.39	39° 58' 16.615 N	109° 29' 54.503 W	

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
PBHL	9385.00	-1230.28	682.12	39° 58' 4.454 N	109° 29' 45.740 W	Circle (Radius: 25.00)

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1335.00	1335.00	GREEN RIVER
4584.00	4703.90	WASATCH
8110.00	8340.90	MESAVERDE

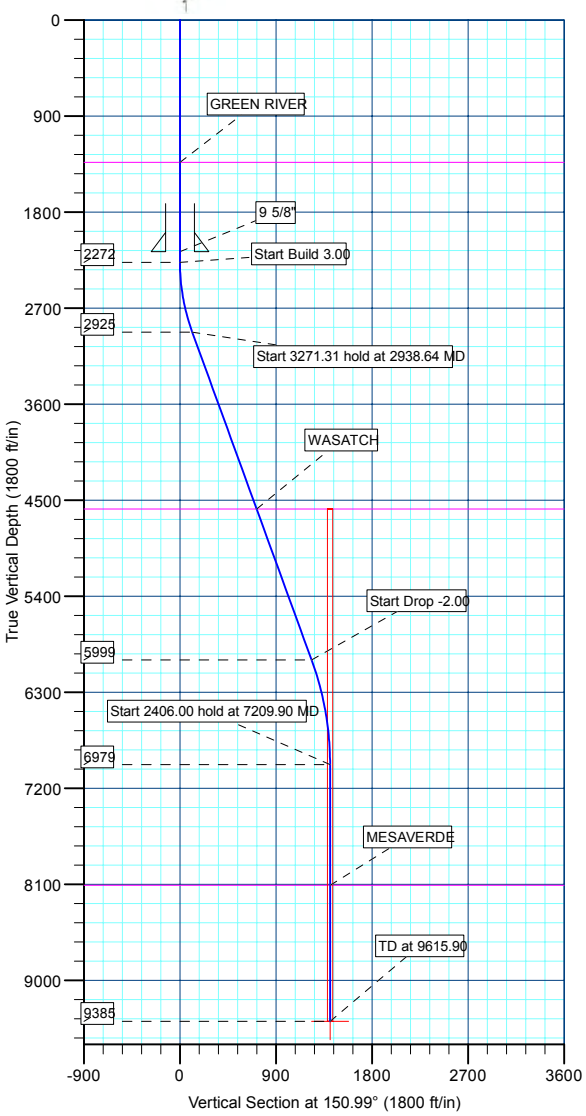
CASING DETAILS

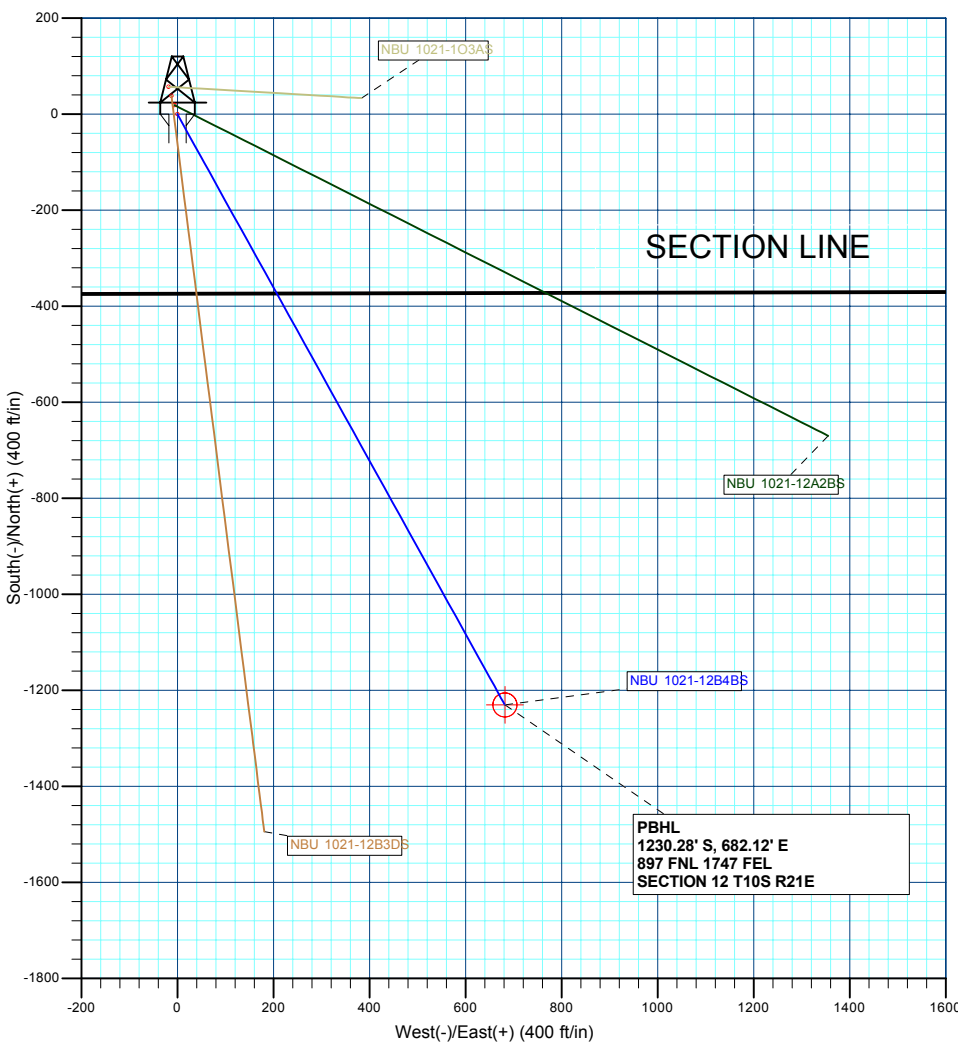
TVD	MD	Name	Size
2172.00	2172.00	9 5/8"	9.62

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2272.00	0.00	0.00	2272.00	0.00	0.00	0.00	0.00	0.00	
2938.64	20.00	150.99	2925.18	-100.72	55.84	3.00	150.99	115.17	
6209.95	20.00	150.99	5999.23	-1079.20	598.35	0.00	0.00	1233.97	
7209.90	0.00	0.00	6979.00	-1230.28	682.12	2.00	180.00	1406.73	
9615.90	0.00	0.00	9385.00	-1230.28	682.12	0.00	0.00	1406.73	PBHL_NBU 1021-12B4BS(897 FNL 1747 FEL)25' TGT RAD

KB ELEV: WELL @ 5235.00ft (Original Well Elev)
RD ELEV: 5221.00





Plan: PLAN #1 11-19-09 RHS (NBU 1021-12B4BS/NBU 1021-12B4BS)

Created By: Robert H. Scott 17:31, November 19 2009

'APIWellNo:43047508570000'

Database:	EDM 2003.21 Single User Db	**Local Co-ordinate Reference:**	Well NBU 1021-12B4BS
Company:	ANADARKO PETROLEUM CORP.	**TVD Reference:**	WELL @ 5235.00ft (Original Well Elev)
Project:	UINTAH COUNTY, UTAH (nad 27)	**MD Reference:**	WELL @ 5235.00ft (Original Well Elev)
Site:	NBU 1021-1O Pad	**North Reference:**	True
Well:	NBU 1021-12B4BS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	NBU 1021-12B4BS		
Design:	PLAN #1 11-19-09 RHS		

Project UINTAH COUNTY, UTAH (nad 27),

Map System:	Universal Transverse Mercator (US Survey Fee	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Zone 12N (114 W to 108 W)		

Site NBU 1021-1O Pad, SECTION 1 T10S R21E

Site Position:		**Northing:**	14,519,185.79 ft	**Latitude:**	39° 58' 17.180 N
From:	Lat/Long	**Easting:**	2,061,097.22 ft	**Longitude:**	109° 29' 54.737 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	in	**Grid Convergence:**	0.96 °

Well NBU 1021-12B4BS

Well Position	**+N/-S**	-57.18 ft	**Northing:**	14,519,128.93 ft	**Latitude:**	39° 58' 16.615 N
	+E/-W	18.22 ft	**Easting:**	2,061,116.39 ft	**Longitude:**	109° 29' 54.503 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	5,221.00 ft

Wellbore NBU 1021-12B4BS

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2009	11/19/2009	11.30	65.90	52,478

Design PLAN #1 11-19-09 RHS

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	150.99

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,272.00	0.00	0.00	2,272.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,938.64	20.00	150.99	2,925.18	-100.72	55.84	3.00	3.00	0.00	150.99	
6,209.95	20.00	150.99	5,999.23	-1,079.20	598.35	0.00	0.00	0.00	0.00	
7,209.90	0.00	0.00	6,979.00	-1,230.28	682.12	2.00	-2.00	0.00	180.00	
9,615.90	0.00	0.00	9,385.00	-1,230.28	682.12	0.00	0.00	0.00	0.00	PBHL_NBU 1021-1

Weatherford International Ltd.

Planning Report

Database:	EDM 2003.21 Single User Db	**Local Co-ordinate Reference:**	Well NBU 1021-12B4BS
Company:	ANADARKO PETROLEUM CORP.	**TVD Reference:**	WELL @ 5235.00ft (Original Well Elev)
Project:	UINTAH COUNTY, UTAH (nad 27)	**MD Reference:**	WELL @ 5235.00ft (Original Well Elev)
Site:	NBU 1021-1O Pad	**North Reference:**	True
Well:	NBU 1021-12B4BS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	NBU 1021-12B4BS		
Design:	PLAN #1 11-19-09 RHS		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
Start Build 3.00									
2,272.00	0.00	0.00	2,272.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.84	150.99	2,300.00	-0.18	0.10	0.21	3.00	3.00	0.00
2,400.00	3.84	150.99	2,399.90	-3.75	2.08	4.29	3.00	3.00	0.00
2,500.00	6.84	150.99	2,499.46	-11.89	6.59	13.59	3.00	3.00	0.00
2,600.00	9.84	150.99	2,598.39	-24.57	13.62	28.10	3.00	3.00	0.00
2,700.00	12.84	150.99	2,696.43	-41.77	23.16	47.76	3.00	3.00	0.00
2,800.00	15.84	150.99	2,793.30	-63.43	35.17	72.52	3.00	3.00	0.00
2,900.00	18.84	150.99	2,888.74	-89.49	49.62	102.32	3.00	3.00	0.00
Start 3271.31 hold at 2938.64 MD									
2,938.64	20.00	150.99	2,925.18	-100.72	55.84	115.17	3.00	3.00	0.00
3,000.00	20.00	150.99	2,982.85	-119.08	66.02	136.15	0.00	0.00	0.00
3,100.00	20.00	150.99	3,076.81	-148.99	82.61	170.36	0.00	0.00	0.00
3,200.00	20.00	150.99	3,170.78	-178.90	99.19	204.56	0.00	0.00	0.00
3,300.00	20.00	150.99	3,264.75	-208.81	115.77	238.76	0.00	0.00	0.00
3,400.00	20.00	150.99	3,358.72	-238.72	132.36	272.96	0.00	0.00	0.00
3,500.00	20.00	150.99	3,452.69	-268.63	148.94	307.16	0.00	0.00	0.00
3,600.00	20.00	150.99	3,546.66	-298.54	165.52	341.36	0.00	0.00	0.00
3,700.00	20.00	150.99	3,640.63	-328.45	182.11	375.56	0.00	0.00	0.00
3,800.00	20.00	150.99	3,734.60	-358.36	198.69	409.76	0.00	0.00	0.00
3,900.00	20.00	150.99	3,828.57	-388.27	215.28	443.96	0.00	0.00	0.00
4,000.00	20.00	150.99	3,922.54	-418.18	231.86	478.16	0.00	0.00	0.00
4,100.00	20.00	150.99	4,016.51	-448.10	248.44	512.36	0.00	0.00	0.00
4,200.00	20.00	150.99	4,110.48	-478.01	265.03	546.56	0.00	0.00	0.00
4,300.00	20.00	150.99	4,204.45	-507.92	281.61	580.76	0.00	0.00	0.00
4,400.00	20.00	150.99	4,298.42	-537.83	298.19	614.96	0.00	0.00	0.00
4,500.00	20.00	150.99	4,392.39	-567.74	314.78	649.16	0.00	0.00	0.00
4,600.00	20.00	150.99	4,486.36	-597.65	331.36	683.36	0.00	0.00	0.00
4,700.00	20.00	150.99	4,580.33	-627.56	347.95	717.56	0.00	0.00	0.00
WASATCH									
4,703.90	20.00	150.99	4,584.00	-628.73	348.59	718.90	0.00	0.00	0.00
4,800.00	20.00	150.99	4,674.30	-657.47	364.53	751.76	0.00	0.00	0.00
4,900.00	20.00	150.99	4,768.27	-687.38	381.11	785.96	0.00	0.00	0.00
5,000.00	20.00	150.99	4,862.24	-717.29	397.70	820.17	0.00	0.00	0.00
5,100.00	20.00	150.99	4,956.21	-747.20	414.28	854.37	0.00	0.00	0.00
5,200.00	20.00	150.99	5,050.18	-777.11	430.86	888.57	0.00	0.00	0.00
5,300.00	20.00	150.99	5,144.15	-807.02	447.45	922.77	0.00	0.00	0.00
5,400.00	20.00	150.99	5,238.12	-836.94	464.03	956.97	0.00	0.00	0.00
5,500.00	20.00	150.99	5,332.09	-866.85	480.62	991.17	0.00	0.00	0.00
5,600.00	20.00	150.99	5,426.06	-896.76	497.20	1,025.37	0.00	0.00	0.00
5,700.00	20.00	150.99	5,520.03	-926.67	513.78	1,059.57	0.00	0.00	0.00
5,800.00	20.00	150.99	5,614.00	-956.58	530.37	1,093.77	0.00	0.00	0.00
5,900.00	20.00	150.99	5,707.97	-986.49	546.95	1,127.97	0.00	0.00	0.00
6,000.00	20.00	150.99	5,801.94	-1,016.40	563.53	1,162.17	0.00	0.00	0.00
6,100.00	20.00	150.99	5,895.91	-1,046.31	580.12	1,196.37	0.00	0.00	0.00
6,200.00	20.00	150.99	5,989.88	-1,076.22	596.70	1,230.57	0.00	0.00	0.00
Start Drop -2.00									
6,209.95	20.00	150.99	5,999.23	-1,079.20	598.35	1,233.97	0.00	0.00	0.00
6,300.00	18.20	150.99	6,084.32	-1,104.97	612.64	1,263.44	2.00	-2.00	0.00
6,400.00	16.20	150.99	6,179.84	-1,130.82	626.97	1,293.00	2.00	-2.00	0.00
6,500.00	14.20	150.99	6,276.34	-1,153.75	639.69	1,319.22	2.00	-2.00	0.00
6,600.00	12.20	150.99	6,373.69	-1,173.72	650.76	1,342.05	2.00	-2.00	0.00
6,700.00	10.20	150.99	6,471.79	-1,190.70	660.17	1,361.47	2.00	-2.00	0.00
6,800.00	8.20	150.99	6,570.49	-1,204.68	667.92	1,377.45	2.00	-2.00	0.00

Weatherford International Ltd.

Planning Report

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Company:	ANADARKO PETROLEUM CORP.	**TVD Reference:**	WELL @ 5235.00ft (Original Well Elev)
Project:	UINTAH COUNTY, UTAH (nad 27)	**MD Reference:**	WELL @ 5235.00ft (Original Well Elev)
Site:	NBU 1021-1O Pad	**North Reference:**	True
Well:	NBU 1021-12B4BS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	NBU 1021-12B4BS		
Design:	PLAN #1 11-19-09 RHS		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
6,900.00	6.20	150.99	6,669.70	-1,215.64	674.00	1,389.98	2.00	-2.00	0.00
7,000.00	4.20	150.99	6,769.29	-1,223.56	678.39	1,399.04	2.00	-2.00	0.00
7,100.00	2.20	150.99	6,869.12	-1,228.44	681.10	1,404.62	2.00	-2.00	0.00
7,200.00	0.20	150.99	6,969.10	-1,230.27	682.11	1,406.71	2.00	-2.00	0.00
Start 2406.00 hold at 7209.90 MD									
7,209.90	0.00	0.00	6,979.00	-1,230.28	682.12	1,406.73	2.00	-2.00	-1,524.78
7,300.00	0.00	0.00	7,069.10	-1,230.28	682.12	1,406.73	0.00	0.00	0.00
7,400.00	0.00	0.00	7,169.10	-1,230.28	682.12	1,406.73	0.00	0.00	0.00
7,500.00	0.00	0.00	7,269.10	-1,230.28	682.12	1,406.73	0.00	0.00	0.00
7,600.00	0.00	0.00	7,369.10	-1,230.28	682.12	1,406.73	0.00	0.00	0.00
7,700.00	0.00	0.00	7,469.10	-1,230.28	682.12	1,406.73	0.00	0.00	0.00
7,800.00	0.00	0.00	7,569.10	-1,230.28	682.12	1,406.73	0.00	0.00	0.00
7,900.00	0.00	0.00	7,669.10	-1,230.28	682.12	1,406.73	0.00	0.00	0.00
8,000.00	0.00	0.00	7,769.10	-1,230.28	682.12	1,406.73	0.00	0.00	0.00
8,100.00	0.00	0.00	7,869.10	-1,230.28	682.12	1,406.73	0.00	0.00	0.00
8,200.00	0.00	0.00	7,969.10	-1,230.28	682.12	1,406.73	0.00	0.00	0.00
8,300.00	0.00	0.00	8,069.10	-1,230.28	682.12	1,406.73	0.00	0.00	0.00
MESAVERDE									
8,340.90	0.00	0.00	8,110.00	-1,230.28	682.12	1,406.73	0.00	0.00	0.00
8,400.00	0.00	0.00	8,169.10	-1,230.28	682.12	1,406.73	0.00	0.00	0.00
8,500.00	0.00	0.00	8,269.10	-1,230.28	682.12	1,406.73	0.00	0.00	0.00
8,600.00	0.00	0.00	8,369.10	-1,230.28	682.12	1,406.73	0.00	0.00	0.00
8,700.00	0.00	0.00	8,469.10	-1,230.28	682.12	1,406.73	0.00	0.00	0.00
8,800.00	0.00	0.00	8,569.10	-1,230.28	682.12	1,406.73	0.00	0.00	0.00
8,900.00	0.00	0.00	8,669.10	-1,230.28	682.12	1,406.73	0.00	0.00	0.00
9,000.00	0.00	0.00	8,769.10	-1,230.28	682.12	1,406.73	0.00	0.00	0.00
9,100.00	0.00	0.00	8,869.10	-1,230.28	682.12	1,406.73	0.00	0.00	0.00
9,200.00	0.00	0.00	8,969.10	-1,230.28	682.12	1,406.73	0.00	0.00	0.00
9,300.00	0.00	0.00	9,069.10	-1,230.28	682.12	1,406.73	0.00	0.00	0.00
9,400.00	0.00	0.00	9,169.10	-1,230.28	682.12	1,406.73	0.00	0.00	0.00
9,500.00	0.00	0.00	9,269.10	-1,230.28	682.12	1,406.73	0.00	0.00	0.00
9,600.00	0.00	0.00	9,369.10	-1,230.28	682.12	1,406.73	0.00	0.00	0.00
PBHL_NBU 1021-12B4BS(897 FNL 1747 FEL)25' TGT RAD									
9,615.90	0.00	0.00	9,385.00	-1,230.28	682.12	1,406.73	0.00	0.00	0.00

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
PBHL_NBU 1021-12E - plan hits target center - Circle (radius 25.00)	0.00	0.00	9,385.00	-1,230.28	682.12	14,517,910.31	2,061,819.13	39° 58' 4.454 N	109° 29' 45.740 W

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
2,172.00	2,172.00	9 5/8"	9.62	12.25

Database:	EDM 2003.21 Single User Db	**Local Co-ordinate Reference:**	Well NBU 1021-12B4BS
Company:	ANADARKO PETROLEUM CORP.	**TVD Reference:**	WELL @ 5235.00ft (Original Well Elev)
Project:	UINTAH COUNTY, UTAH (nad 27)	**MD Reference:**	WELL @ 5235.00ft (Original Well Elev)
Site:	NBU 1021-1O Pad	**North Reference:**	True
Well:	NBU 1021-12B4BS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	NBU 1021-12B4BS		
Design:	PLAN #1 11-19-09 RHS		

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,335.00	1,335.00	GREEN RIVER			
4,703.90	4,584.00	WASATCH			
8,340.90	8,110.00	MESAVERDE			

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
2,272.00	2,272.00	0.00	0.00	Start Build 3.00
2,938.64	2,925.18	-100.72	55.84	Start 3271.31 hold at 2938.64 MD
6,209.95	5,999.23	-1,079.20	598.35	Start Drop -2.00
7,209.90	6,979.00	-1,230.28	682.12	Start 2406.00 hold at 7209.90 MD
9,615.90	9,385.00	-1,230.28	682.12	TD at 9615.90

’APIWellNo:43047508570000’

ANADARKO PETROLEUM CORP.

UINTAH COUNTY, UTAH (nad 27)
NBU 1021-1O Pad
NBU 1021-12B4BS

NBU 1021-12B4BS
PLAN #1 11-19-09 RHS

Anticollision Report

19 November, 2009

'APIWellNo:43047508570000'

Weatherford International Ltd.

Anticollision Report

Company:	ANADARKO PETROLEUM CORP.	**Local Co-ordinate Reference:**	Well NBU 1021-12B4BS
Project:	UINTAH COUNTY, UTAH (nad 27)	**TVD Reference:**	WELL @ 5235.00ft (Original Well Elev)
Reference Site:	NBU 1021-1O Pad	**MD Reference:**	WELL @ 5235.00ft (Original Well Elev)
Site Error:	0.00ft	**North Reference:**	True
Reference Well:	NBU 1021-12B4BS	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00ft	**Output errors are at**	2.00 sigma
Reference Wellbore	NBU 1021-12B4BS	**Database:**	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 11-19-09 RHS	**Offset TVD Reference:**	Offset Datum

Reference PLAN #1 11-19-09 RHS

Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	**Error Model:**	ISCWSA
Depth Range:	0.00 to 20,000.00ft	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.00ft	**Error Surface:**	Elliptical Conic
Warning Levels Evaluated at:	2.00 **Sigma**		

Survey Tool Program **Date** 11/19/2009

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	9,615.90	PLAN #1 11-19-09 RHS (NBU 1021-12B4	MWD	MWD - Standard

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
NBU 1021-1O Pad						
NBU 1021-12A2BS - NBU 1021-12A2BS - PLAN #1 11-1	531.23	531.80	14.12	11.99	6.644	CC, ES, SF
NBU 1021-12B3DS - NBU 1021-12B3DS - PLAN #1 11-1	2,483.43	2,487.85	39.63	28.98	3.721	CC
NBU 1021-12B3DS - NBU 1021-12B3DS - PLAN #1 11-1	2,500.00	2,504.74	39.64	28.94	3.705	ES
NBU 1021-12B3DS - NBU 1021-12B3DS - PLAN #1 11-1	2,600.00	2,606.55	40.23	29.24	3.660	SF
NBU 1021-1O3AS - NBU 1021-1O3AS - PLAN #1 11-19-	2,272.00	2,272.00	60.01	50.05	6.027	CC, ES
NBU 1021-1O3AS - NBU 1021-1O3AS - PLAN #1 11-19-	2,300.00	2,300.00	60.21	50.14	5.977	SF

Offset Design NBU 1021-1O Pad - NBU 1021-12A2BS - NBU 1021-12A2BS - PLAN #1 11-19-09 RHS — **Offset Site Error:** 0.00 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.00 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-18.03	18.94	-6.17	19.92				
100.00	100.00	100.00	100.00	0.10	0.10	-18.03	18.94	-6.17	19.92	19.72	0.19	103.037	
200.00	200.00	200.00	200.00	0.32	0.32	-18.03	18.94	-6.17	19.92	19.27	0.64	30.983	
300.00	300.00	300.00	300.00	0.55	0.55	-18.03	18.94	-6.17	19.92	18.82	1.09	18.233	
400.00	400.00	400.65	400.60	0.77	0.76	-12.09	17.74	-3.80	18.15	16.63	1.53	11.884	
500.00	500.00	500.74	500.37	1.00	0.98	12.87	14.18	3.24	14.55	12.58	1.97	7.374	
531.23	531.23	531.80	531.23	1.07	1.06	26.83	12.60	6.37	14.12	11.99	2.12	6.644	CC, ES, SF
600.00	600.00	599.74	598.51	1.22	1.25	60.55	8.34	14.78	17.04	14.59	2.45	6.965	
700.00	700.00	697.14	694.28	1.45	1.59	89.31	0.37	30.55	31.08	28.17	2.91	10.673	
800.00	800.00	792.49	787.05	1.67	2.00	100.79	-9.57	50.18	52.70	49.30	3.40	15.484	
900.00	900.00	885.40	876.27	1.89	2.49	106.17	-21.24	73.27	79.89	75.96	3.93	20.349	
1,000.00	1,000.00	975.53	961.53	2.12	3.05	109.12	-34.43	99.33	111.95	107.47	4.48	25.007	
1,100.00	1,100.00	1,062.63	1,042.53	2.34	3.68	110.92	-48.88	127.91	148.50	143.45	5.05	29.388	
1,200.00	1,200.00	1,146.52	1,119.07	2.57	4.36	112.10	-64.37	158.52	189.26	183.61	5.65	33.478	
1,300.00	1,300.00	1,236.86	1,200.69	2.79	5.15	112.97	-81.85	193.08	232.04	225.75	6.29	36.876	
1,400.00	1,400.00	1,327.20	1,282.30	3.02	5.96	113.57	-99.34	227.65	274.86	267.92	6.94	39.608	
1,500.00	1,500.00	1,417.54	1,363.91	3.24	6.77	114.01	-116.82	262.22	317.69	310.09	7.60	41.805	
1,600.00	1,600.00	1,507.88	1,445.53	3.47	7.59	114.35	-134.31	296.78	360.53	352.26	8.27	43.601	
1,700.00	1,700.00	1,598.22	1,527.14	3.69	8.41	114.61	-151.80	331.35	403.38	394.43	8.95	45.094	
1,800.00	1,800.00	1,688.56	1,608.75	3.92	9.24	114.83	-169.28	365.91	446.23	436.61	9.63	46.351	
1,900.00	1,900.00	1,778.90	1,690.37	4.14	10.07	115.00	-186.77	400.48	489.09	478.78	10.31	47.424	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

'APIWellNo:43047508570000'

Company:	ANADARKO PETROLEUM CORP.	**Local Co-ordinate Reference:**	Well NBU 1021-12B4BS
Project:	UINTAH COUNTY, UTAH (nad 27)	**TVD Reference:**	WELL @ 5235.00ft (Original Well Elev)
Reference Site:	NBU 1021-1O Pad	**MD Reference:**	WELL @ 5235.00ft (Original Well Elev)
Site Error:	0.00ft	**North Reference:**	True
Reference Well:	NBU 1021-12B4BS	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00ft	**Output errors are at**	2.00 sigma
Reference Wellbore	NBU 1021-12B4BS	**Database:**	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 11-19-09 RHS	**Offset TVD Reference:**	Offset Datum

Offset Design NBU 1021-1O Pad - NBU 1021-12A2BS - NBU 1021-12A2BS - PLAN #1 11-19-09 RHS

Offset Site Error: 0.00 ft
Survey Program: 0-MWD
Offset Well Error: 0.00 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
2,000.00	2,000.00	1,869.24	1,771.98	4.37	10.90	115.15	-204.25	435.05	531.96	520.95	11.00	48.349	
2,100.00	2,100.00	1,959.58	1,853.59	4.59	11.73	115.28	-221.74	469.61	574.82	563.13	11.69	49.155	
2,200.00	2,200.00	2,049.92	1,935.21	4.82	12.56	115.38	-239.22	504.18	617.69	605.30	12.39	49.863	
2,272.00	2,272.00	2,114.97	1,993.97	4.98	13.16	115.45	-251.81	529.07	648.55	635.67	12.89	50.322	
2,300.00	2,300.00	2,140.33	2,016.89	5.03	13.39	-35.30	-256.72	538.77	660.41	649.43	10.98	60.149	
2,400.00	2,399.90	2,232.04	2,099.73	5.21	14.24	-34.68	-274.47	573.86	700.24	688.72	11.52	60.808	
2,500.00	2,499.46	2,325.28	2,183.96	5.39	15.10	-34.39	-292.52	609.54	736.09	724.03	12.06	61.030	
2,600.00	2,598.39	2,419.80	2,269.35	5.58	15.98	-34.39	-310.81	645.70	767.93	755.32	12.61	60.878	
2,700.00	2,696.43	2,515.34	2,355.67	5.81	16.86	-34.64	-329.31	682.26	795.75	782.57	13.18	60.378	
2,800.00	2,793.30	2,611.64	2,442.67	6.07	17.75	-35.13	-347.95	719.11	819.56	805.79	13.77	59.530	
2,900.00	2,888.74	2,708.44	2,530.11	6.40	18.65	-35.84	-366.68	756.14	839.42	825.03	14.39	58.318	
2,938.64	2,925.18	2,745.91	2,563.97	6.54	18.99	-36.17	-373.94	770.48	846.07	831.41	14.65	57.746	
3,000.00	2,982.85	2,805.45	2,617.76	6.80	19.55	-36.90	-385.46	793.26	856.23	841.14	15.09	56.736	
3,100.00	3,076.81	2,902.48	2,705.41	7.24	20.44	-38.05	-404.24	830.39	873.08	857.23	15.85	55.083	
3,200.00	3,170.78	2,999.51	2,793.07	7.73	21.34	-39.15	-423.02	867.51	890.28	873.62	16.66	53.441	
3,300.00	3,264.75	3,096.54	2,880.72	8.25	22.24	-40.22	-441.80	904.64	907.79	890.27	17.51	51.830	
3,400.00	3,358.72	3,193.56	2,968.38	8.79	23.14	-41.24	-460.58	941.76	925.60	907.18	18.41	50.264	
3,500.00	3,452.69	3,290.59	3,056.03	9.36	24.04	-42.23	-479.36	978.89	943.70	924.34	19.36	48.754	
3,600.00	3,546.66	3,387.62	3,143.69	9.94	24.94	-43.18	-498.14	1,016.01	962.06	941.73	20.34	47.308	
3,700.00	3,640.63	3,484.64	3,231.34	10.54	25.84	-44.10	-516.92	1,053.14	980.68	959.33	21.35	45.930	
3,800.00	3,734.60	3,581.67	3,319.00	11.16	26.74	-44.98	-535.70	1,090.26	999.54	977.14	22.40	44.623	
3,900.00	3,828.57	3,704.77	3,430.63	11.78	27.79	-46.07	-559.11	1,136.55	1,017.99	994.37	23.62	43.103	
4,000.00	3,922.54	3,853.88	3,568.49	12.41	28.78	-47.43	-584.74	1,187.21	1,032.37	1,007.40	24.96	41.353	
4,100.00	4,016.51	4,004.12	3,710.19	13.06	29.66	-48.87	-607.25	1,231.70	1,042.10	1,015.75	26.35	39.545	
4,200.00	4,110.48	4,154.66	3,854.61	13.70	30.39	-50.40	-626.41	1,269.58	1,047.20	1,019.43	27.77	37.714	
4,300.00	4,204.45	4,304.69	4,000.55	14.36	31.00	-52.05	-642.07	1,300.55	1,047.76	1,018.54	29.22	35.860	
4,400.00	4,298.42	4,453.39	4,146.80	15.02	31.48	-53.82	-654.17	1,324.47	1,043.92	1,013.22	30.70	34.008	
4,500.00	4,392.39	4,599.99	4,292.15	15.68	31.83	-55.74	-662.73	1,341.39	1,035.86	1,003.65	32.21	32.158	
4,600.00	4,486.36	4,743.78	4,435.48	16.34	32.07	-57.82	-667.86	1,351.52	1,023.84	990.08	33.76	30.330	
4,700.00	4,580.33	4,884.15	4,575.77	17.01	32.21	-60.08	-669.73	1,355.21	1,008.16	972.81	35.35	28.521	
4,800.00	4,674.30	4,982.68	4,674.30	17.69	32.27	-61.79	-669.74	1,355.24	990.79	954.10	36.69	27.005	
4,900.00	4,768.27	5,076.65	4,768.27	18.36	32.33	-63.48	-669.74	1,355.24	974.29	936.26	38.03	25.621	
5,000.00	4,862.24	5,170.62	4,862.24	19.04	32.39	-65.22	-669.74	1,355.24	958.73	919.33	39.39	24.337	
5,100.00	4,956.21	5,264.59	4,956.21	19.72	32.46	-67.01	-669.74	1,355.24	944.15	903.36	40.79	23.148	
5,200.00	5,050.18	5,358.56	5,050.18	20.40	32.52	-68.85	-669.74	1,355.24	930.59	888.39	42.20	22.052	
5,300.00	5,144.15	5,452.53	5,144.15	21.09	32.59	-70.73	-669.74	1,355.24	918.12	874.49	43.63	21.044	
5,400.00	5,238.12	5,546.50	5,238.12	21.77	32.66	-72.66	-669.74	1,355.24	906.76	861.69	45.07	20.120	
5,500.00	5,332.09	5,640.47	5,332.09	22.46	32.73	-74.63	-669.74	1,355.24	896.56	850.05	46.51	19.277	
5,600.00	5,426.06	5,734.44	5,426.06	23.15	32.80	-76.64	-669.74	1,355.24	887.57	839.62	47.95	18.511	
5,700.00	5,520.03	5,828.41	5,520.03	23.84	32.87	-78.68	-669.74	1,355.24	879.81	830.43	49.38	17.819	
5,800.00	5,614.00	5,922.38	5,614.00	24.53	32.94	-80.75	-669.74	1,355.24	873.32	822.54	50.79	17.196	
5,900.00	5,707.97	6,016.35	5,707.97	25.22	33.01	-82.85	-669.74	1,355.24	868.14	815.96	52.18	16.639	
6,000.00	5,801.94	6,110.32	5,801.94	25.91	33.09	-84.96	-669.74	1,355.24	864.28	810.75	53.53	16.145	
6,100.00	5,895.91	6,204.29	5,895.91	26.61	33.16	-87.09	-669.74	1,355.24	861.76	806.91	54.85	15.711	
6,209.95	5,999.23	6,307.61	5,999.23	27.37	33.25	-89.44	-669.74	1,355.24	860.55	804.29	56.25	15.298	
6,236.35	6,024.08	6,332.46	6,024.08	27.53	33.27	-90.00	-669.74	1,355.24	860.50	803.95	56.55	15.216	
6,300.00	6,084.32	6,392.70	6,084.32	27.91	33.32	-91.30	-669.74	1,355.24	860.74	803.49	57.25	15.034	
6,400.00	6,179.84	6,488.22	6,179.84	28.38	33.40	-93.20	-669.74	1,355.24	861.96	803.77	58.19	14.813	
6,500.00	6,276.34	6,584.72	6,276.34	28.81	33.48	-94.91	-669.74	1,355.24	863.88	804.86	59.02	14.638	
6,600.00	6,373.69	6,682.07	6,373.69	29.20	33.57	-96.43	-669.74	1,355.24	866.19	806.45	59.75	14.497	
6,700.00	6,471.79	6,780.17	6,471.79	29.55	33.66	-97.72	-669.74	1,355.24	868.63	808.25	60.38	14.385	
6,800.00	6,570.49	6,878.87	6,570.49	29.84	33.74	-98.80	-669.74	1,355.24	870.96	810.03	60.93	14.294	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Weatherford International Ltd.

Anticollision Report

Company:	ANADARKO PETROLEUM CORP.	**Local Co-ordinate Reference:**	Well NBU 1021-12B4BS
Project:	UINTAH COUNTY, UTAH (nad 27)	**TVD Reference:**	WELL @ 5235.00ft (Original Well Elev)
Reference Site:	NBU 1021-1O Pad	**MD Reference:**	WELL @ 5235.00ft (Original Well Elev)
Site Error:	0.00ft	**North Reference:**	True
Reference Well:	NBU 1021-12B4BS	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00ft	**Output errors are at**	2.00 sigma
Reference Wellbore	NBU 1021-12B4BS	**Database:**	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 11-19-09 RHS	**Offset TVD Reference:**	Offset Datum

Offset Design NBU 1021-1O Pad - NBU 1021-12A2BS - NBU 1021-12A2BS - PLAN #1 11-19-09 RHS

Offset Site Error: 0.00 ft

Survey Program: 0-MWD

Offset Well Error: 0.00 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
6,900.00	6,669.70	6,978.08	6,669.70	30.10	33.83	-99.64	-669.74	1,355.24	872.98	811.59	61.39	14.220	
7,000.00	6,769.29	7,077.67	6,769.29	30.31	33.93	-100.26	-669.74	1,355.24	874.55	812.78	61.78	14.157	
7,100.00	6,869.12	7,177.50	6,869.12	30.47	34.02	-100.64	-669.74	1,355.24	875.57	813.48	62.09	14.102	
7,209.90	6,979.00	7,287.38	6,979.00	30.60	34.12	50.21	-669.74	1,355.24	875.96	813.61	62.35	14.048	
7,300.00	7,069.10	7,377.48	7,069.10	30.69	34.21	50.21	-669.74	1,355.24	875.96	813.42	62.53	14.008	
7,400.00	7,169.10	7,477.48	7,169.10	30.79	34.31	50.21	-669.74	1,355.24	875.96	813.22	62.73	13.963	
7,500.00	7,269.10	7,577.48	7,269.10	30.89	34.41	50.21	-669.74	1,355.24	875.96	813.02	62.94	13.918	
7,600.00	7,369.10	7,677.48	7,369.10	30.99	34.50	50.21	-669.74	1,355.24	875.96	812.81	63.14	13.872	
7,700.00	7,469.10	7,777.48	7,469.10	31.09	34.60	50.21	-669.74	1,355.24	875.96	812.61	63.35	13.827	
7,800.00	7,569.10	7,877.48	7,569.10	31.20	34.71	50.21	-669.74	1,355.24	875.96	812.39	63.56	13.781	
7,900.00	7,669.10	7,977.48	7,669.10	31.30	34.81	50.21	-669.74	1,355.24	875.96	812.18	63.78	13.735	
8,000.00	7,769.10	8,077.48	7,769.10	31.41	34.91	50.21	-669.74	1,355.24	875.96	811.96	63.99	13.688	
8,100.00	7,869.10	8,177.48	7,869.10	31.51	35.02	50.21	-669.74	1,355.24	875.96	811.75	64.21	13.642	
8,200.00	7,969.10	8,277.48	7,969.10	31.62	35.12	50.21	-669.74	1,355.24	875.96	811.53	64.43	13.595	
8,300.00	8,069.10	8,377.48	8,069.10	31.73	35.23	50.21	-669.74	1,355.24	875.96	811.30	64.66	13.548	
8,400.00	8,169.10	8,477.48	8,169.10	31.84	35.34	50.21	-669.74	1,355.24	875.96	811.08	64.88	13.501	
8,500.00	8,269.10	8,577.48	8,269.10	31.95	35.45	50.21	-669.74	1,355.24	875.96	810.85	65.11	13.454	
8,600.00	8,369.10	8,677.48	8,369.10	32.07	35.56	50.21	-669.74	1,355.24	875.96	810.62	65.34	13.406	
8,700.00	8,469.10	8,777.48	8,469.10	32.18	35.67	50.21	-669.74	1,355.24	875.96	810.39	65.57	13.359	
8,800.00	8,569.10	8,877.48	8,569.10	32.30	35.79	50.21	-669.74	1,355.24	875.96	810.15	65.81	13.311	
8,900.00	8,669.10	8,977.48	8,669.10	32.41	35.90	50.21	-669.74	1,355.24	875.96	809.91	66.04	13.263	
9,000.00	8,769.10	9,077.48	8,769.10	32.53	36.01	50.21	-669.74	1,355.24	875.96	809.67	66.28	13.215	
9,100.00	8,869.10	9,177.48	8,869.10	32.65	36.13	50.21	-669.74	1,355.24	875.96	809.43	66.52	13.168	
9,200.00	8,969.10	9,277.48	8,969.10	32.77	36.25	50.21	-669.74	1,355.24	875.96	809.19	66.77	13.119	
9,300.00	9,069.10	9,377.48	9,069.10	32.89	36.36	50.21	-669.74	1,355.24	875.96	808.94	67.01	13.071	
9,400.00	9,169.10	9,477.48	9,169.10	33.01	36.48	50.21	-669.74	1,355.24	875.96	808.70	67.26	13.023	
9,500.00	9,269.10	9,577.48	9,269.10	33.14	36.60	50.21	-669.74	1,355.24	875.96	808.45	67.51	12.975	
9,600.00	9,369.10	9,677.48	9,369.10	33.26	36.72	50.21	-669.74	1,355.24	875.96	808.19	67.76	12.927	
9,601.43	9,370.53	9,678.91	9,370.53	33.26	36.73	50.21	-669.74	1,355.24	875.96	808.19	67.77	12.926	
9,615.90	9,385.00	9,686.38	9,378.00	33.28	36.74	50.21	-669.74	1,355.24	875.99	808.19	67.79	12.921	

'APIWellNo:43047508570000'

Weatherford International Ltd.

Anticollision Report

Company:	ANADARKO PETROLEUM CORP.	**Local Co-ordinate Reference:**	Well NBU 1021-12B4BS
Project:	UINTAH COUNTY, UTAH (nad 27)	**TVD Reference:**	WELL @ 5235.00ft (Original Well Elev)
Reference Site:	NBU 1021-1O Pad	**MD Reference:**	WELL @ 5235.00ft (Original Well Elev)
Site Error:	0.00ft	**North Reference:**	True
Reference Well:	NBU 1021-12B4BS	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00ft	**Output errors are at**	2.00 sigma
Reference Wellbore	NBU 1021-12B4BS	**Database:**	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 11-19-09 RHS	**Offset TVD Reference:**	Offset Datum

Offset Design NBU 1021-1O Pad - NBU 1021-12B3DS - NBU 1021-12B3DS - PLAN #1 11-19-09 RHS

Offset Site Error: 0.00 ft

Survey Program: 0-MWD

Offset Well Error: 0.00 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-17.87	38.24	-12.33	40.18				
100.00	100.00	100.00	100.00	0.10	0.10	-17.87	38.24	-12.33	40.18	39.99	0.19	207.866	
200.00	200.00	200.00	200.00	0.32	0.32	-17.87	38.24	-12.33	40.18	39.54	0.64	62.505	
300.00	300.00	300.00	300.00	0.55	0.55	-17.87	38.24	-12.33	40.18	39.09	1.09	36.783	
400.00	400.00	400.00	400.00	0.77	0.77	-17.87	38.24	-12.33	40.18	38.64	1.54	26.059	
500.00	500.00	500.00	500.00	1.00	1.00	-17.87	38.24	-12.33	40.18	38.19	1.99	20.177	
600.00	600.00	600.00	600.00	1.22	1.22	-17.87	38.24	-12.33	40.18	37.74	2.44	16.461	
700.00	700.00	700.00	700.00	1.45	1.45	-17.87	38.24	-12.33	40.18	37.29	2.89	13.901	
800.00	800.00	800.00	800.00	1.67	1.67	-17.87	38.24	-12.33	40.18	36.84	3.34	12.030	
900.00	900.00	900.00	900.00	1.89	1.89	-17.87	38.24	-12.33	40.18	36.39	3.79	10.603	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	-17.87	38.24	-12.33	40.18	35.94	4.24	9.479	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	-17.87	38.24	-12.33	40.18	35.49	4.69	8.570	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	-17.87	38.24	-12.33	40.18	35.04	5.14	7.820	
1,300.00	1,300.00	1,300.00	1,300.00	2.79	2.79	-17.87	38.24	-12.33	40.18	34.59	5.59	7.191	
1,400.00	1,400.00	1,400.00	1,400.00	3.02	3.02	-17.87	38.24	-12.33	40.18	34.14	6.04	6.655	
1,500.00	1,500.00	1,500.00	1,500.00	3.24	3.24	-17.87	38.24	-12.33	40.18	33.69	6.49	6.194	
1,600.00	1,600.00	1,600.00	1,600.00	3.47	3.47	-17.87	38.24	-12.33	40.18	33.24	6.94	5.793	
1,700.00	1,700.00	1,700.00	1,700.00	3.69	3.69	-17.87	38.24	-12.33	40.18	32.79	7.39	5.440	
1,800.00	1,800.00	1,800.00	1,800.00	3.92	3.92	-17.87	38.24	-12.33	40.18	32.35	7.84	5.128	
1,900.00	1,900.00	1,900.00	1,900.00	4.14	4.14	-17.87	38.24	-12.33	40.18	31.90	8.28	4.850	
2,000.00	2,000.00	2,000.00	2,000.00	4.37	4.37	-17.87	38.24	-12.33	40.18	31.45	8.73	4.600	
2,100.00	2,100.00	2,100.00	2,100.00	4.59	4.59	-17.87	38.24	-12.33	40.18	31.00	9.18	4.375	
2,200.00	2,200.00	2,200.00	2,200.00	4.82	4.82	-17.87	38.24	-12.33	40.18	30.55	9.63	4.171	
2,272.00	2,272.00	2,272.11	2,272.11	4.98	4.98	-17.87	38.23	-12.33	40.17	30.22	9.96	4.035	
2,300.00	2,300.00	2,300.70	2,300.69	5.03	5.03	-169.00	37.95	-12.29	40.10	30.03	10.07	3.983	
2,400.00	2,399.90	2,402.77	2,402.66	5.21	5.21	-171.37	33.46	-11.73	39.78	29.39	10.39	3.828	
2,483.43	2,483.00	2,487.85	2,487.36	5.36	5.36	-175.63	25.59	-10.73	39.63	28.98	10.65	3.721	CC
2,500.00	2,499.46	2,504.74	2,504.13	5.39	5.39	-176.72	23.58	-10.48	39.64	28.94	10.70	3.705	ES
2,600.00	2,598.39	2,606.55	2,604.76	5.58	5.58	175.11	8.37	-8.56	40.23	29.24	10.99	3.660	SF
2,700.00	2,696.43	2,708.12	2,704.21	5.81	5.80	164.81	-12.08	-5.98	42.32	31.03	11.29	3.748	
2,800.00	2,793.30	2,809.41	2,802.15	6.07	6.06	153.68	-37.66	-2.75	46.69	35.02	11.67	4.000	
2,900.00	2,888.74	2,910.35	2,898.25	6.40	6.39	143.18	-68.25	1.11	53.80	41.59	12.21	4.407	
2,938.64	2,925.18	2,949.24	2,934.83	6.54	6.53	139.51	-81.38	2.76	57.32	44.85	12.47	4.596	
3,000.00	2,982.85	3,010.22	2,991.85	6.80	6.78	134.33	-102.82	5.47	63.34	50.34	13.00	4.874	
3,100.00	3,076.81	3,109.34	3,084.51	7.24	7.22	127.76	-137.72	9.87	74.00	60.07	13.93	5.312	
3,200.00	3,170.78	3,208.47	3,177.18	7.73	7.70	122.88	-172.62	14.28	85.39	70.44	14.94	5.714	
3,300.00	3,264.75	3,307.59	3,269.85	8.25	8.22	119.16	-207.52	18.68	97.24	81.23	16.01	6.074	
3,400.00	3,358.72	3,406.71	3,362.52	8.79	8.76	116.26	-242.43	23.08	109.40	92.28	17.12	6.389	
3,500.00	3,452.69	3,505.83	3,455.19	9.36	9.32	113.95	-277.33	27.49	121.79	103.52	18.27	6.665	
3,600.00	3,546.66	3,604.95	3,547.86	9.94	9.90	112.06	-312.23	31.89	134.34	114.88	19.45	6.905	
3,700.00	3,640.63	3,704.07	3,640.53	10.54	10.50	110.50	-347.13	36.29	147.01	126.35	20.66	7.115	
3,800.00	3,734.60	3,803.19	3,733.20	11.16	11.11	109.18	-382.03	40.70	159.76	137.88	21.89	7.299	
3,900.00	3,828.57	3,902.31	3,825.87	11.78	11.73	108.06	-416.93	45.10	172.59	149.46	23.13	7.461	
4,000.00	3,922.54	4,001.44	3,918.54	12.41	12.36	107.09	-451.84	49.50	185.48	161.09	24.39	7.604	
4,100.00	4,016.51	4,100.56	4,011.20	13.06	12.99	106.26	-486.74	53.91	198.41	172.74	25.66	7.731	
4,200.00	4,110.48	4,199.68	4,103.87	13.70	13.64	105.52	-521.64	58.31	211.37	184.43	26.95	7.844	
4,300.00	4,204.45	4,298.80	4,196.54	14.36	14.29	104.87	-556.54	62.71	224.37	196.13	28.24	7.945	
4,400.00	4,298.42	4,397.92	4,289.21	15.02	14.94	104.29	-591.44	67.12	237.39	207.85	29.54	8.036	
4,500.00	4,392.39	4,497.04	4,381.88	15.68	15.60	103.77	-626.34	71.52	250.44	219.59	30.85	8.118	
4,600.00	4,486.36	4,596.16	4,474.55	16.34	16.26	103.30	-661.24	75.93	263.50	231.33	32.17	8.192	
4,700.00	4,580.33	4,695.29	4,567.22	17.01	16.93	102.87	-696.15	80.33	276.58	243.09	33.49	8.259	
4,800.00	4,674.30	4,794.41	4,659.89	17.69	17.60	102.49	-731.05	84.73	289.67	254.85	34.81	8.321	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Weatherford International Ltd.

Anticollision Report

Company:	ANADARKO PETROLEUM CORP.	**Local Co-ordinate Reference:**	Well NBU 1021-12B4BS
Project:	UINTAH COUNTY, UTAH (nad 27)	**TVD Reference:**	WELL @ 5235.00ft (Original Well Elev)
Reference Site:	NBU 1021-1O Pad	**MD Reference:**	WELL @ 5235.00ft (Original Well Elev)
Site Error:	0.00ft	**North Reference:**	True
Reference Well:	NBU 1021-12B4BS	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00ft	**Output errors are at**	2.00 sigma
Reference Wellbore	NBU 1021-12B4BS	**Database:**	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 11-19-09 RHS	**Offset TVD Reference:**	Offset Datum

Offset Design NBU 1021-1O Pad - NBU 1021-12B3DS - NBU 1021-12B3DS - PLAN #1 11-19-09 RHS

Offset Site Error: 0.00 ft

Survey Program: 0-MWD

Offset Well Error: 0.00 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
4,900.00	4,768.27	4,893.53	4,752.56	18.36	18.27	102.13	-765.95	89.14	302.77	266.63	36.14	8.377	
5,000.00	4,862.24	4,992.65	4,845.22	19.04	18.95	101.81	-800.85	93.54	315.88	278.41	37.48	8.429	
5,100.00	4,956.21	5,091.77	4,937.89	19.72	19.63	101.51	-835.75	97.94	329.01	290.19	38.81	8.476	
5,200.00	5,050.18	5,190.89	5,030.56	20.40	20.30	101.24	-870.65	102.35	342.14	301.98	40.16	8.520	
5,300.00	5,144.15	5,290.01	5,123.23	21.09	20.99	100.98	-905.56	106.75	355.27	313.78	41.50	8.561	
5,400.00	5,238.12	5,389.13	5,215.90	21.77	21.67	100.75	-940.46	111.15	368.42	325.57	42.85	8.599	
5,500.00	5,332.09	5,488.26	5,308.57	22.46	22.35	100.53	-975.36	115.56	381.57	337.37	44.19	8.634	
5,600.00	5,426.06	5,587.38	5,401.24	23.15	23.04	100.32	-1,010.26	119.96	394.72	349.18	45.55	8.666	
5,700.00	5,520.03	5,686.50	5,493.91	23.84	23.72	100.13	-1,045.16	124.37	407.88	360.98	46.90	8.697	
5,800.00	5,614.00	5,785.62	5,586.58	24.53	24.41	99.95	-1,080.06	128.77	421.05	372.79	48.25	8.726	
5,900.00	5,707.97	5,884.74	5,679.24	25.22	25.10	99.78	-1,114.97	133.17	434.22	384.60	49.61	8.752	
6,000.00	5,801.94	5,983.86	5,771.91	25.91	25.79	99.62	-1,149.87	137.58	447.39	396.42	50.97	8.778	
6,100.00	5,895.91	6,082.98	5,864.58	26.61	26.48	99.47	-1,184.77	141.98	460.56	408.23	52.33	8.801	
6,209.95	5,999.23	6,191.97	5,966.47	27.37	27.24	99.32	-1,223.14	146.82	475.05	421.22	53.83	8.826	
6,300.00	6,084.32	6,281.23	6,049.92	27.91	27.86	99.26	-1,254.57	150.79	486.69	431.72	54.98	8.852	
6,400.00	6,179.84	6,380.27	6,142.52	28.38	28.56	98.83	-1,289.45	155.19	499.14	443.00	56.13	8.892	
6,500.00	6,276.34	6,480.92	6,236.74	28.81	29.22	98.05	-1,324.57	159.62	511.09	453.89	57.20	8.936	
6,600.00	6,373.69	6,584.31	6,334.56	29.20	29.74	97.22	-1,357.74	163.80	522.03	463.96	58.07	8.990	
6,700.00	6,471.79	6,688.27	6,434.08	29.55	30.20	96.39	-1,387.54	167.56	531.82	472.98	58.83	9.039	
6,800.00	6,570.49	6,792.78	6,535.16	29.84	30.63	95.58	-1,413.87	170.89	540.42	480.92	59.51	9.082	
6,900.00	6,669.70	6,897.81	6,637.65	30.10	31.02	94.78	-1,436.63	173.76	547.82	487.74	60.08	9.118	
7,000.00	6,769.29	7,003.33	6,741.40	30.31	31.35	93.97	-1,455.73	176.17	553.99	493.44	60.55	9.149	
7,100.00	6,869.12	7,109.32	6,846.24	30.47	31.65	93.16	-1,471.08	178.10	558.93	498.00	60.93	9.174	
7,209.90	6,979.00	7,226.30	6,962.53	30.60	31.91	-116.75	-1,483.54	179.68	562.90	501.68	61.22	9.194	
7,300.00	7,069.10	7,322.64	7,058.64	30.69	32.08	-117.40	-1,490.26	180.53	565.06	503.65	61.41	9.201	
7,400.00	7,169.10	7,429.97	7,165.90	30.79	32.23	-117.75	-1,493.97	180.99	566.28	504.66	61.61	9.191	
7,500.00	7,269.10	7,533.18	7,269.10	30.89	32.34	-117.79	-1,494.34	181.04	566.40	504.58	61.82	9.162	
7,600.00	7,369.10	7,633.18	7,369.10	30.99	32.43	-117.79	-1,494.34	181.04	566.40	504.38	62.02	9.133	
7,700.00	7,469.10	7,733.18	7,469.10	31.09	32.52	-117.79	-1,494.34	181.04	566.40	504.18	62.22	9.104	
7,800.00	7,569.10	7,833.18	7,569.10	31.20	32.62	-117.79	-1,494.34	181.04	566.40	503.98	62.42	9.074	
7,900.00	7,669.10	7,933.18	7,669.10	31.30	32.71	-117.79	-1,494.34	181.04	566.40	503.77	62.63	9.044	
8,000.00	7,769.10	8,033.18	7,769.10	31.41	32.81	-117.79	-1,494.34	181.04	566.40	503.56	62.83	9.014	
8,100.00	7,869.10	8,133.18	7,869.10	31.51	32.91	-117.79	-1,494.34	181.04	566.40	503.35	63.05	8.984	
8,200.00	7,969.10	8,233.18	7,969.10	31.62	33.01	-117.79	-1,494.34	181.04	566.40	503.14	63.26	8.954	
8,300.00	8,069.10	8,333.18	8,069.10	31.73	33.11	-117.79	-1,494.34	181.04	566.40	502.92	63.47	8.923	
8,400.00	8,169.10	8,433.18	8,169.10	31.84	33.21	-117.79	-1,494.34	181.04	566.40	502.71	63.69	8.893	
8,500.00	8,269.10	8,533.18	8,269.10	31.95	33.31	-117.79	-1,494.34	181.04	566.40	502.49	63.91	8.862	
8,600.00	8,369.10	8,633.18	8,369.10	32.07	33.42	-117.79	-1,494.34	181.04	566.40	502.26	64.14	8.831	
8,700.00	8,469.10	8,733.18	8,469.10	32.18	33.52	-117.79	-1,494.34	181.04	566.40	502.04	64.36	8.800	
8,800.00	8,569.10	8,833.18	8,569.10	32.30	33.63	-117.79	-1,494.34	181.04	566.40	501.81	64.59	8.769	
8,900.00	8,669.10	8,933.18	8,669.10	32.41	33.74	-117.79	-1,494.34	181.04	566.40	501.58	64.82	8.738	
9,000.00	8,769.10	9,033.18	8,769.10	32.53	33.85	-117.79	-1,494.34	181.04	566.40	501.35	65.05	8.707	
9,100.00	8,869.10	9,133.18	8,869.10	32.65	33.96	-117.79	-1,494.34	181.04	566.40	501.11	65.29	8.676	
9,200.00	8,969.10	9,233.18	8,969.10	32.77	34.07	-117.79	-1,494.34	181.04	566.40	500.88	65.52	8.644	
9,300.00	9,069.10	9,333.18	9,069.10	32.89	34.18	-117.79	-1,494.34	181.04	566.40	500.64	65.76	8.613	
9,400.00	9,169.10	9,433.18	9,169.10	33.01	34.29	-117.79	-1,494.34	181.04	566.40	500.40	66.00	8.581	
9,500.00	9,269.10	9,533.18	9,269.10	33.14	34.41	-117.79	-1,494.34	181.04	566.40	500.15	66.25	8.550	
9,600.00	9,369.10	9,633.18	9,369.10	33.26	34.52	-117.79	-1,494.34	181.04	566.40	499.91	66.49	8.518	
9,615.90	9,385.00	9,649.08	9,385.00	33.28	34.54	-117.79	-1,494.34	181.04	566.40	499.87	66.53	8.513	

Weatherford International Ltd.

Anticollision Report

Company:	ANADARKO PETROLEUM CORP.	**Local Co-ordinate Reference:**	Well NBU 1021-12B4BS
Project:	UINTAH COUNTY, UTAH (nad 27)	**TVD Reference:**	WELL @ 5235.00ft (Original Well Elev)
Reference Site:	NBU 1021-1O Pad	**MD Reference:**	WELL @ 5235.00ft (Original Well Elev)
Site Error:	0.00ft	**North Reference:**	True
Reference Well:	NBU 1021-12B4BS	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00ft	**Output errors are at**	2.00 sigma
Reference Wellbore	NBU 1021-12B4BS	**Database:**	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 11-19-09 RHS	**Offset TVD Reference:**	Offset Datum

Offset Design NBU 1021-1O Pad - NBU 1021-1O3AS - NBU 1021-1O3AS - PLAN #1 11-19-09 RHS — **Offset Site Error:** 0.00 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.00 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-17.67	57.18	-18.22	60.01				
100.00	100.00	100.00	100.00	0.10	0.10	-17.67	57.18	-18.22	60.01	59.82	0.19	310.460	
200.00	200.00	200.00	200.00	0.32	0.32	-17.67	57.18	-18.22	60.01	59.37	0.64	93.355	
300.00	300.00	300.00	300.00	0.55	0.55	-17.67	57.18	-18.22	60.01	58.92	1.09	54.937	
400.00	400.00	400.00	400.00	0.77	0.77	-17.67	57.18	-18.22	60.01	58.47	1.54	38.921	
500.00	500.00	500.00	500.00	1.00	1.00	-17.67	57.18	-18.22	60.01	58.02	1.99	30.135	
600.00	600.00	600.00	600.00	1.22	1.22	-17.67	57.18	-18.22	60.01	57.57	2.44	24.585	
700.00	700.00	700.00	700.00	1.45	1.45	-17.67	57.18	-18.22	60.01	57.12	2.89	20.762	
800.00	800.00	800.00	800.00	1.67	1.67	-17.67	57.18	-18.22	60.01	56.67	3.34	17.967	
900.00	900.00	900.00	900.00	1.89	1.89	-17.67	57.18	-18.22	60.01	56.22	3.79	15.836	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	-17.67	57.18	-18.22	60.01	55.77	4.24	14.157	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	-17.67	57.18	-18.22	60.01	55.32	4.69	12.799	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	-17.67	57.18	-18.22	60.01	54.87	5.14	11.680	
1,300.00	1,300.00	1,300.00	1,300.00	2.79	2.79	-17.67	57.18	-18.22	60.01	54.42	5.59	10.740	
1,400.00	1,400.00	1,400.00	1,400.00	3.02	3.02	-17.67	57.18	-18.22	60.01	53.97	6.04	9.940	
1,500.00	1,500.00	1,500.00	1,500.00	3.24	3.24	-17.67	57.18	-18.22	60.01	53.52	6.49	9.251	
1,600.00	1,600.00	1,600.00	1,600.00	3.47	3.47	-17.67	57.18	-18.22	60.01	53.08	6.94	8.652	
1,700.00	1,700.00	1,700.00	1,700.00	3.69	3.69	-17.67	57.18	-18.22	60.01	52.63	7.39	8.125	
1,800.00	1,800.00	1,800.00	1,800.00	3.92	3.92	-17.67	57.18	-18.22	60.01	52.18	7.84	7.659	
1,900.00	1,900.00	1,900.00	1,900.00	4.14	4.14	-17.67	57.18	-18.22	60.01	51.73	8.28	7.244	
2,000.00	2,000.00	2,000.00	2,000.00	4.37	4.37	-17.67	57.18	-18.22	60.01	51.28	8.73	6.871	
2,100.00	2,100.00	2,100.00	2,100.00	4.59	4.59	-17.67	57.18	-18.22	60.01	50.83	9.18	6.534	
2,200.00	2,200.00	2,200.00	2,200.00	4.82	4.82	-17.67	57.18	-18.22	60.01	50.38	9.63	6.229	
2,272.00	2,272.00	2,272.00	2,272.00	4.98	4.98	-17.67	57.18	-18.22	60.01	50.05	9.96	6.027	CC, ES
2,300.00	2,300.00	2,300.00	2,300.00	5.03	5.04	-168.70	57.18	-18.22	60.21	50.14	10.07	5.977	SF
2,400.00	2,399.90	2,401.05	2,401.01	5.21	5.26	-167.24	57.03	-15.65	63.32	52.88	10.44	6.064	
2,500.00	2,499.46	2,501.75	2,501.39	5.39	5.46	-162.80	56.57	-7.80	69.98	59.19	10.79	6.488	
2,600.00	2,598.39	2,601.69	2,600.47	5.58	5.68	-156.76	55.80	5.21	80.84	69.71	11.13	7.262	
2,700.00	2,696.43	2,700.52	2,697.63	5.81	5.92	-150.46	54.75	23.14	96.52	85.01	11.51	8.387	
2,800.00	2,793.30	2,797.89	2,792.33	6.07	6.19	-144.73	53.42	45.69	117.32	105.38	11.94	9.825	
2,900.00	2,888.74	2,893.50	2,884.09	6.40	6.51	-139.86	51.84	72.50	143.24	130.79	12.46	11.498	
2,938.64	2,925.18	2,929.92	2,918.67	6.54	6.65	-138.20	51.17	83.91	154.60	141.91	12.69	12.187	
3,000.00	2,982.85	2,987.55	2,972.95	6.80	6.88	-136.01	50.03	103.21	173.43	160.30	13.13	13.207	
3,100.00	3,076.81	3,082.11	3,061.82	7.24	7.31	-133.11	48.13	135.49	204.64	190.71	13.93	14.692	
3,200.00	3,170.78	3,176.68	3,150.69	7.73	7.78	-130.97	46.23	167.77	236.20	221.42	14.78	15.984	
3,300.00	3,264.75	3,271.25	3,239.55	8.25	8.27	-129.34	44.33	200.05	267.99	252.31	15.68	17.094	
3,400.00	3,358.72	3,367.75	3,330.47	8.79	8.76	-128.16	42.43	232.34	299.74	283.15	16.59	18.073	
3,500.00	3,452.69	3,466.04	3,424.08	9.36	9.20	-127.74	40.67	262.26	330.65	313.19	17.45	18.943	
3,600.00	3,546.66	3,565.02	3,519.32	9.94	9.60	-127.92	39.09	289.14	360.59	342.29	18.30	19.704	
3,700.00	3,640.63	3,664.45	3,615.87	10.54	9.99	-128.59	37.70	312.81	389.56	370.44	19.13	20.369	
3,800.00	3,734.60	3,764.09	3,713.40	11.16	10.35	-129.63	36.50	333.16	417.67	397.75	19.92	20.970	
3,900.00	3,828.57	3,863.71	3,811.55	11.78	10.68	-130.99	35.50	350.11	445.03	424.37	20.67	21.535	
4,000.00	3,922.54	3,963.06	3,909.97	12.41	10.97	-132.60	34.71	363.61	471.83	450.47	21.36	22.089	
4,100.00	4,016.51	4,061.91	4,008.30	13.06	11.23	-134.42	34.11	373.66	498.27	476.28	21.99	22.655	
4,200.00	4,110.48	4,160.02	4,106.19	13.70	11.45	-136.41	33.72	380.28	524.57	502.00	22.56	23.250	
4,300.00	4,204.45	4,257.18	4,203.29	14.36	11.63	-138.55	33.53	383.53	550.96	527.90	23.06	23.897	
4,400.00	4,298.42	4,352.32	4,298.42	15.02	11.78	-140.73	33.51	383.92	577.73	554.24	23.49	24.592	
4,500.00	4,392.39	4,446.28	4,392.39	15.68	11.94	-142.73	33.51	383.92	605.21	581.29	23.92	25.303	
4,600.00	4,486.36	4,540.25	4,486.36	16.34	12.10	-144.57	33.51	383.92	633.34	609.00	24.34	26.018	
4,700.00	4,580.33	4,634.22	4,580.33	17.01	12.27	-146.25	33.51	383.92	662.05	637.29	24.76	26.737	
4,800.00	4,674.30	4,728.19	4,674.30	17.69	12.43	-147.80	33.51	383.92	691.25	666.08	25.18	27.455	
4,900.00	4,768.27	4,822.16	4,768.27	18.36	12.60	-149.23	33.51	383.92	720.90	695.30	25.59	28.168	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Anadarko Petroleum Corporation

Weatherford International Ltd.

Anticollision Report

Weatherford

Company:	ANADARKO PETROLEUM CORP.	**Local Co-ordinate Reference:**	Well NBU 1021-12B4BS
Project:	UINTAH COUNTY, UTAH (nad 27)	**TVD Reference:**	WELL @ 5235.00ft (Original Well Elev)
Reference Site:	NBU 1021-1O Pad	**MD Reference:**	WELL @ 5235.00ft (Original Well Elev)
Site Error:	0.00ft	**North Reference:**	True
Reference Well:	NBU 1021-12B4BS	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00ft	**Output errors are at**	2.00 sigma
Reference Wellbore	NBU 1021-12B4BS	**Database:**	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 11-19-09 RHS	**Offset TVD Reference:**	Offset Datum

Offset Design NBU 1021-1O Pad - NBU 1021-1O3AS - NBU 1021-1O3AS - PLAN #1 11-19-09 RHS — **Offset Site Error:** 0.00 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.00 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,000.00	4,862.24	4,916.13	4,862.24	19.04	12.77	-150.54	33.51	383.92	750.93	724.92	26.01	28.874	
5,100.00	4,956.21	5,010.10	4,956.21	19.72	12.94	-151.76	33.51	383.92	781.30	754.88	26.42	29.569	
5,200.00	5,050.18	5,104.07	5,050.18	20.40	13.11	-152.89	33.51	383.92	811.98	785.14	26.84	30.253	
5,300.00	5,144.15	5,198.04	5,144.15	21.09	13.28	-153.94	33.51	383.92	842.93	815.67	27.26	30.923	
5,400.00	5,238.12	5,292.01	5,238.12	21.77	13.46	-154.91	33.51	383.92	874.12	846.44	27.68	31.579	
5,500.00	5,332.09	5,385.98	5,332.09	22.46	13.63	-155.82	33.51	383.92	905.53	877.43	28.11	32.219	
5,600.00	5,426.06	5,479.95	5,426.06	23.15	13.81	-156.67	33.51	383.92	937.14	908.61	28.53	32.844	
5,700.00	5,520.03	5,573.92	5,520.03	23.84	13.98	-157.46	33.51	383.92	968.92	939.96	28.96	33.454	
5,800.00	5,614.00	5,667.89	5,614.00	24.53	14.16	-158.21	33.51	383.92	1,000.86	971.46	29.40	34.047	
5,900.00	5,707.97	5,761.86	5,707.97	25.22	14.34	-158.91	33.51	383.92	1,032.95	1,003.11	29.83	34.624	
6,000.00	5,801.94	5,855.83	5,801.94	25.91	14.52	-159.56	33.51	383.92	1,065.16	1,034.89	30.27	35.185	
6,100.00	5,895.91	5,949.80	5,895.91	26.61	14.70	-160.18	33.51	383.92	1,097.50	1,066.78	30.72	35.731	
6,209.95	5,999.23	6,053.12	5,999.23	27.37	14.90	-160.82	33.51	383.92	1,133.18	1,101.97	31.21	36.313	
6,300.00	6,084.32	6,138.21	6,084.32	27.91	15.06	-161.49	33.51	383.92	1,161.22	1,129.53	31.69	36.638	
6,400.00	6,179.84	6,233.74	6,179.84	28.38	15.25	-162.12	33.51	383.92	1,189.43	1,157.23	32.20	36.936	
6,500.00	6,276.34	6,330.23	6,276.34	28.81	15.44	-162.65	33.51	383.92	1,214.50	1,181.81	32.69	37.153	
6,600.00	6,373.69	6,427.59	6,373.69	29.20	15.63	-163.10	33.51	383.92	1,236.36	1,203.21	33.15	37.295	
6,700.00	6,471.79	6,525.68	6,471.79	29.55	15.82	-163.46	33.51	383.92	1,254.99	1,221.41	33.59	37.368	
6,800.00	6,570.49	6,624.39	6,570.49	29.84	16.02	-163.76	33.51	383.92	1,270.34	1,236.35	33.99	37.375	
6,900.00	6,669.70	6,723.59	6,669.70	30.10	16.21	-163.98	33.51	383.92	1,282.39	1,248.02	34.36	37.320	
7,000.00	6,769.29	6,823.18	6,769.29	30.31	16.41	-164.14	33.51	383.92	1,291.10	1,256.40	34.70	37.207	
7,100.00	6,869.12	6,923.02	6,869.12	30.47	16.61	-164.23	33.51	383.92	1,296.47	1,261.46	35.01	37.035	
7,209.90	6,979.00	7,032.89	6,979.00	30.60	16.83	-13.28	33.51	383.92	1,298.50	1,263.19	35.30	36.782	
7,300.00	7,069.10	7,122.99	7,069.10	30.69	17.01	-13.28	33.51	383.92	1,298.50	1,262.87	35.63	36.446	
7,400.00	7,169.10	7,222.99	7,169.10	30.79	17.21	-13.28	33.51	383.92	1,298.50	1,262.50	35.99	36.078	
7,500.00	7,269.10	7,322.99	7,269.10	30.89	17.41	-13.28	33.51	383.92	1,298.50	1,262.14	36.36	35.715	
7,600.00	7,369.10	7,422.99	7,369.10	30.99	17.61	-13.28	33.51	383.92	1,298.50	1,261.77	36.72	35.358	
7,700.00	7,469.10	7,522.99	7,469.10	31.09	17.82	-13.28	33.51	383.92	1,298.50	1,261.40	37.09	35.006	
7,800.00	7,569.10	7,622.99	7,569.10	31.20	18.02	-13.28	33.51	383.92	1,298.50	1,261.03	37.46	34.659	
7,900.00	7,669.10	7,722.99	7,669.10	31.30	18.23	-13.28	33.51	383.92	1,298.50	1,260.66	37.84	34.318	
8,000.00	7,769.10	7,822.99	7,769.10	31.41	18.43	-13.28	33.51	383.92	1,298.50	1,260.28	38.21	33.982	
8,100.00	7,869.10	7,922.99	7,869.10	31.51	18.63	-13.28	33.51	383.92	1,298.50	1,259.91	38.59	33.651	
8,200.00	7,969.10	8,022.99	7,969.10	31.62	18.84	-13.28	33.51	383.92	1,298.50	1,259.53	38.96	33.326	
8,300.00	8,069.10	8,122.99	8,069.10	31.73	19.05	-13.28	33.51	383.92	1,298.50	1,259.15	39.34	33.005	
8,400.00	8,169.10	8,222.99	8,169.10	31.84	19.25	-13.28	33.51	383.92	1,298.50	1,258.77	39.72	32.689	
8,500.00	8,269.10	8,322.99	8,269.10	31.95	19.46	-13.28	33.51	383.92	1,298.50	1,258.39	40.10	32.378	
8,600.00	8,369.10	8,422.99	8,369.10	32.07	19.67	-13.28	33.51	383.92	1,298.50	1,258.01	40.49	32.072	
8,700.00	8,469.10	8,522.99	8,469.10	32.18	19.87	-13.28	33.51	383.92	1,298.50	1,257.63	40.87	31.771	
8,800.00	8,569.10	8,622.99	8,569.10	32.30	20.08	-13.28	33.51	383.92	1,298.50	1,257.24	41.26	31.474	
8,900.00	8,669.10	8,722.99	8,669.10	32.41	20.29	-13.28	33.51	383.92	1,298.50	1,256.85	41.64	31.182	
9,000.00	8,769.10	8,822.99	8,769.10	32.53	20.50	-13.28	33.51	383.92	1,298.50	1,256.47	42.03	30.894	
9,100.00	8,869.10	8,922.99	8,869.10	32.65	20.71	-13.28	33.51	383.92	1,298.50	1,256.08	42.42	30.611	
9,200.00	8,969.10	9,022.99	8,969.10	32.77	20.92	-13.28	33.51	383.92	1,298.50	1,255.69	42.81	30.332	
9,300.00	9,069.10	9,122.99	9,069.10	32.89	21.12	-13.28	33.51	383.92	1,298.50	1,255.30	43.20	30.057	
9,400.00	9,169.10	9,222.99	9,169.10	33.01	21.33	-13.28	33.51	383.92	1,298.50	1,254.90	43.59	29.787	
9,500.00	9,269.10	9,322.99	9,269.10	33.14	21.54	-13.28	33.51	383.92	1,298.50	1,254.51	43.99	29.520	
9,600.00	9,369.10	9,422.99	9,369.10	33.26	21.75	-13.28	33.51	383.92	1,298.50	1,254.12	44.38	29.258	
9,615.90	9,385.00	9,438.89	9,385.00	33.28	21.79	-13.28	33.51	383.92	1,298.50	1,254.05	44.44	29.217	

Weatherford International Ltd.

Anticollision Report

Company:	ANADARKO PETROLEUM CORP.	**Local Co-ordinate Reference:**	Well NBU 1021-12B4BS
Project:	UINTAH COUNTY, UTAH (nad 27)	**TVD Reference:**	WELL @ 5235.00ft (Original Well Elev)
Reference Site:	NBU 1021-1O Pad	**MD Reference:**	WELL @ 5235.00ft (Original Well Elev)
Site Error:	0.00ft	**North Reference:**	True
Reference Well:	NBU 1021-12B4BS	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00ft	**Output errors are at**	2.00 sigma
Reference Wellbore	NBU 1021-12B4BS	**Database:**	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 11-19-09 RHS	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to WELL @ 5235.00ft (Original Well Ele\Coordinates are relative to: NBU 1021-12B4BS
Offset Depths are relative to Offset Datum
Coordinate System is Universal Transverse Mercator (US Survey Feet), Zone 12N
Central Meridian is 111° 0' 0.000 W °
Grid Convergence at Surface is: 0.96°

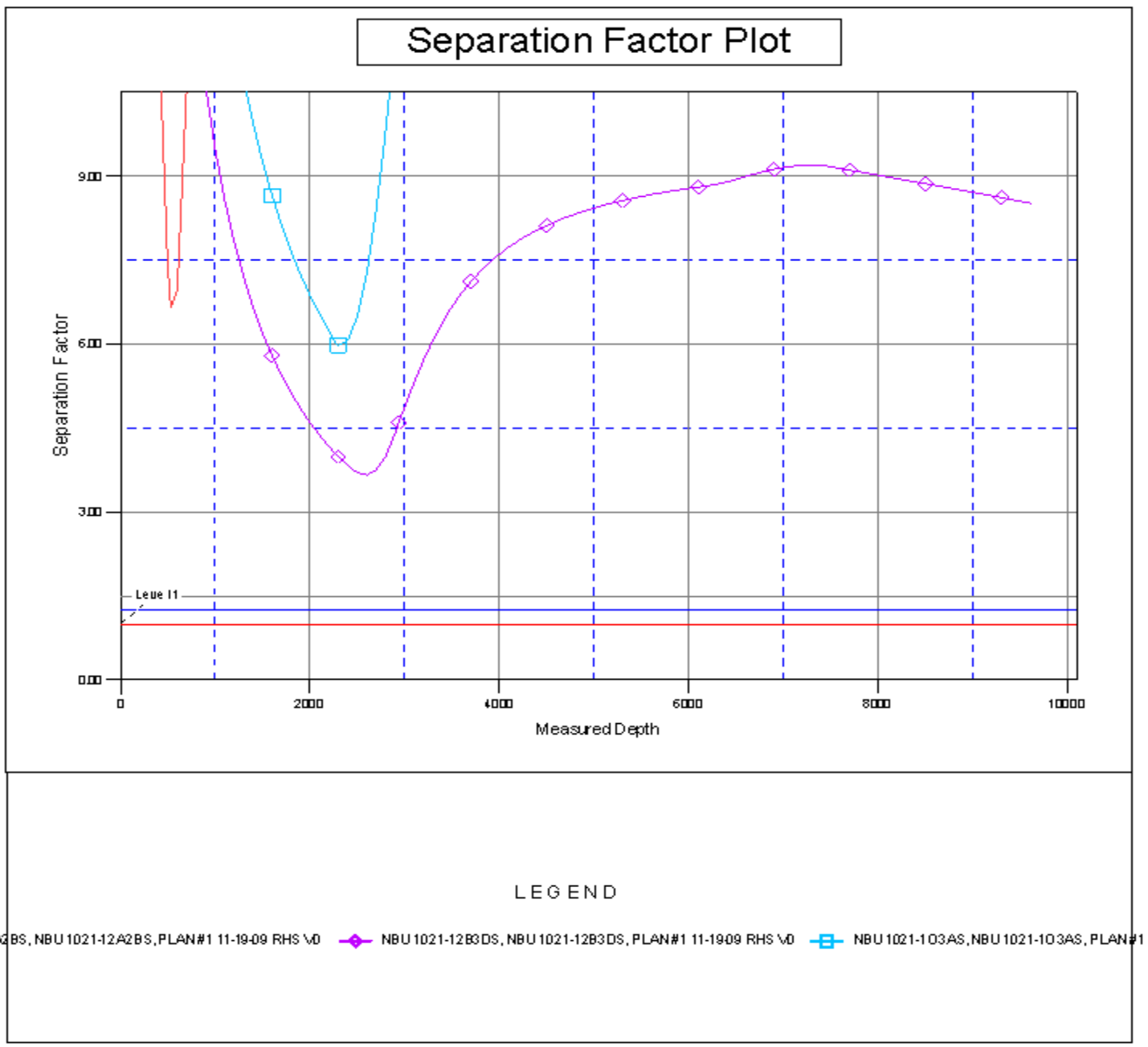
CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Weatherford International Ltd.

Anticollision Report

Company:	ANADARKO PETROLEUM CORP.	**Local Co-ordinate Reference:**	Well NBU 1021-12B4BS
Project:	UINTAH COUNTY, UTAH (nad 27)	**TVD Reference:**	WELL @ 5235.00ft (Original Well Elev)
Reference Site:	NBU 1021-1O Pad	**MD Reference:**	WELL @ 5235.00ft (Original Well Elev)
Site Error:	0.00ft	**North Reference:**	True
Reference Well:	NBU 1021-12B4BS	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00ft	**Output errors are at**	2.00 sigma
Reference Wellbore	NBU 1021-12B4BS	**Database:**	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 11-19-09 RHS	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to WELL @ 5235.00ft (Original Well Ele\Coordinates are relative to: NBU 1021-12B4BS
Offset Depths are relative to Offset Datum
Coordinate System is Universal Transverse Mercator (US Survey Feet), Zone 12N
Central Meridian is 111° 0' 0.000 W °
Grid Convergence at Surface is: 0.96°



NBU 1021-12B4BS
Pad: NBU 1021-1O
Surface: 336’ FSL 2,422’ FEL (SW/4SE/4) Section 1
BHL: 897’ FNL 1,747’ FEL (NW/4NE/4) Section 12
T10S R21E

Uintah, Utah
Mineral Lease: ML 23612

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. – 2. Estimated Tops of Important Geologic Markers:
Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

Formation	Depth	Resource
Uinta	0 – Surface	
Green River	1,335’	
Birds Nest	1,671’	Water
Mahogany	2,022’	Water
Wasatch	4,584’	Gas
Mesaverde	7,209’	Gas
MVU2	8,110’	Gas
MVL1	8,674’	Gas
TVD	9,385’	
TD	9,616’	

3. Pressure Control Equipment (Schematic Attached)

Please refer to the attached Drilling Program.

4. Proposed Casing & Cementing Program:

Please refer to the attached Drilling Program.

5. Drilling Fluids Program:

Please refer to the attached Drilling Program.

6. Evaluation Program:

Please refer to the attached Drilling Program.

7. Abnormal Conditions:

Maximum anticipated bottomhole pressure calculated at 9,385' TVD, approximately equals 5,555 psi (calculated at 0.59 psi/foot).

Maximum anticipated surface pressure equals approximately 3,490 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

9. Variances:

Please refer to the attached Drilling Program.
Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- *Blowout Prevention Equipment (BOPE) requirements;*
- *Mud program requirements; and*
- *Special drilling operation (surface equipment placement) requirements associated with air drilling.*

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12-1/4 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 12-1/4 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 9-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements
The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements
Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements
Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Conclusion
The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

10. Other Information:

Please refer to the attached Drilling Program.

'APIWellNo:43047508570000'

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP		DATE	December 18, 2009	
WELL NAME	**NBU 1021-12B4BS**		TD	9,385' TVD	9,616' MD
FIELD	Natural Buttes	COUNTY Uintah	STATE Utah	FINISHED ELEVATION	5,221'
SURFACE LOCATION	SW/4 SE/4	336' FSL	2,422' FEL	Sec 1	T 10S R 21E
	Latitude:	39.971282	Longitude:	-109.498473	NAD 27
BTM HOLE LOCATION	NW/4 NE/4	897' FNL	1,747' FEL	Sec 12	T 10S R 21E
	Latitude:	39.967904	Longitude:	-109.496039	NAD 27
OBJECTIVE ZONE(S)	Wasatch/Mesaverde				
ADDITIONAL INFO	Regulatory Agencies: SITLA (Minerals), UDOGM (Surface), UDOGM Tri-County Health Dept.				

GEOLOGICAL			MECHANICAL		
LOGS	FORMATION TOPS	DEPTH	HOLE SIZE	CASING SIZE	MUD WEIGHT
		40'	14"		
			11"	8-5/8", 28#, IJ-55, LTC	Air mist

All water flows encountered while drilling will be reported to the appropriate agencies.

Green River @ 1,335'

Top of Birds Nest @ 1,671'

Mahogany @ 2,022'

Preset f/ GL @ 2,225' MD

Note: 12.25" surface hole will usually be drilled ±400' below the lost circulation zone (aka bird's nest). Drilled depth may be ±200' of the estimated set depth depending on the acutal depth of the loss zone.

Wasatch @ 4,584'

Mud logging program TBD

Cased hole logging program from TD - surf csg

7-7/8"	4-1/2" 11.6# I-80 or equivalent BTC csg	Water / Fresh Water Mud 8.3-11.6 ppg

Mverde @ 7,209' TVD

MVU2 @ 8,110' TVD

MVU1 @ 8,674' TVD

Max anticipated Mud required 11.6 ppg

TD @ 9,385' TVD 9,616' MD

'APIWellNo:43047508570000'

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL			WT.	GR.	CPLG.	DESIGN FACTORS BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'								
								3,390	1,880	348,000
SURFACE	8-5/8"	0	to	2,225	28.00	IJ-55	LTC	0.92	1.81	5.53
								7,780	6,350	278,000
PRODUCTION	4-1/2"	0	to	9,616	11.60	I-80	BTC	2.16	1.12	2.86

*Burst on suface casing is controlled by fracture gradient as shoe with gas gradient above. D.F. = 2.42

1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

2) MASP (Prod Casing) = Pore Pressure at TD - (0.22 psi/ft-partial evac gradient x TD)
(Burst Assumptions: TD = 11.6 ppg) 0.22 psi/ft = gradient for partially evac wellbore
(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)
MASP 3,490 psi

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD
(Burst Assumptions: TD = 11.6 ppg) 0.59 psi/ft = bottomhole gradient
(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)
MABHP 5,555 psi

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500'	Premium cmt + 2% CaCl	215	60%	15.60	1.18
Option 1			+ 0.25 pps flocele				
	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	260	0%	15.60	1.18
			+ 2% CaCl + 0.25 pps flocele				
			Premium cmt + 2% CaCl				
SURFACE			**NOTE: If well will circulate water to surface, option 2 will be utilized**				
Option 2	LEAD	1,725'	65/35 Poz + 6% Gel + 10 pps gilsonite	330	35%	12.60	1.81
			+ 0.25 pps Flocele + 3% salt BWOW				
	TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.60	1.18
			+ 0.25 pps flocele				
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
PRODUCTION	LEAD	4,076'	Premium Lite II +0.25 pps	330	40%	11.00	3.38
			celloflake + 5 pps gilsonite + 10% gel				
			+ 0.5% extender				
	TAIL	5,540'	50/50 Poz/G + 10% salt + 2% gel	1,360	40%	14.30	1.31
			+ 0.1% R-3				

*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
PRODUCTION	Float shoe, 1 jt, float collar. No centralizers will be used.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

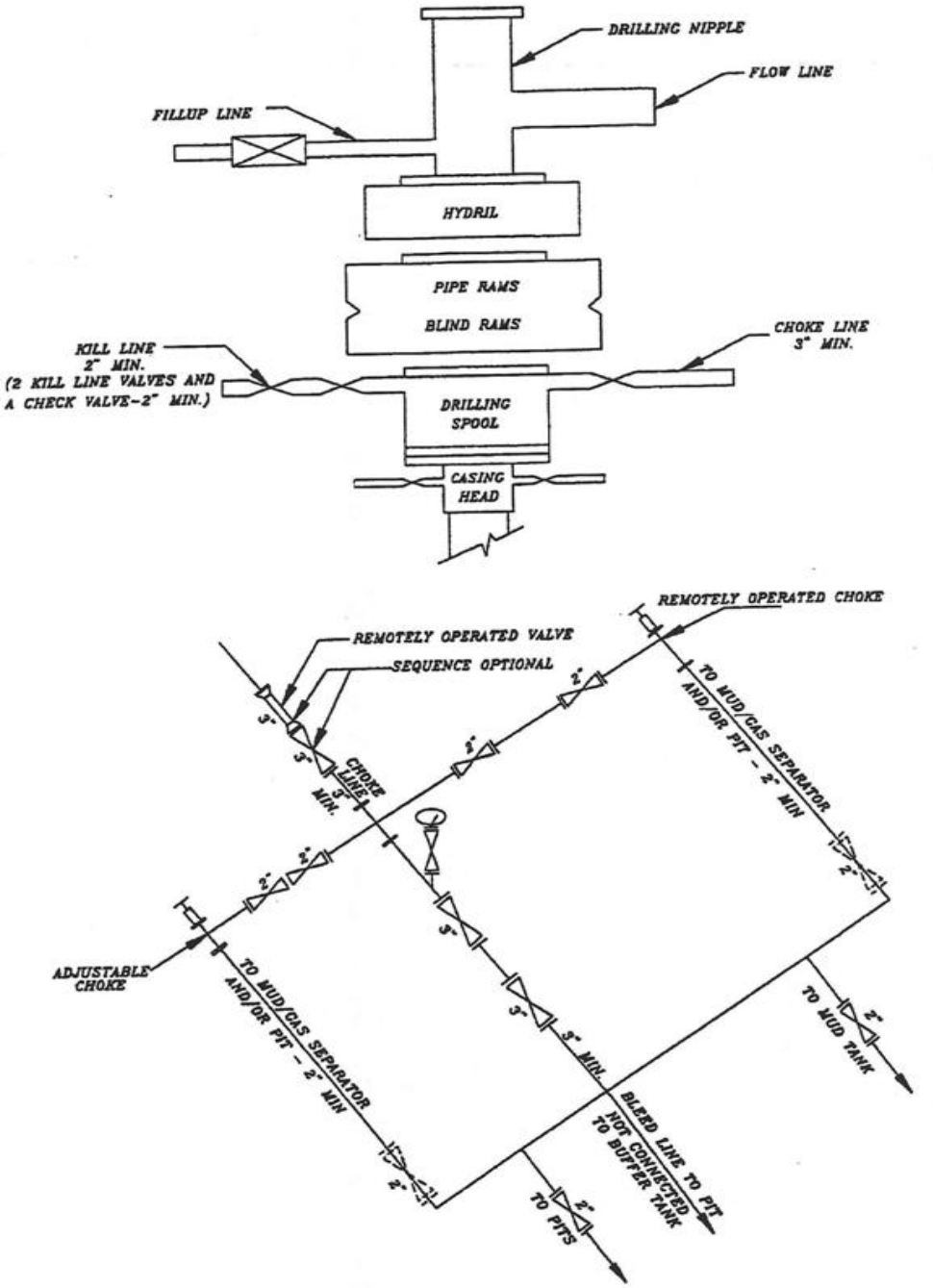
Surveys will be taken at 1,000' minimum intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

DRILLING ENGINEER: _____ **DATE:** _____
John Huycke / Emile Goodwin

DRILLING SUPERINTENDENT: _____ **DATE:** _____
John Merkel / Lovel Young

EXHIBIT A
NBU 1021-12B4BS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

’APIWellNo:43047508570000’

LATITUDE & LONGITUDE Surface Position - (NAD 83)		
WELL	N. LATITUDE	W. LONGITUDE
NBU 1021-01O3AS	39°58'17.054" 39.971404°	109°29'57.208" 109.499224°
NBU 1021-12B3DS	39°58'16.866" 39.971352°	109°29'57.131" 109.499203°
NBU 1021-12A2BS	39°58'16.678" 39.971299°	109°29'57.051" 109.499181°
NBU 1021-12B4BS	39°58'16.491" 39.971247°	109°29'56.973" 109.499159°
NBU 1021-01O Existing Well	39°58'15.586" 39.970996°	109°29'59.497" 109.499860°

LATITUDE & LONGITUDE Bottom Hole - (NAD 83)		
WELL	N. LATITUDE	W. LONGITUDE
NBU 1021-01O3AS	39°58'16.820" 39.971339°	109°29'52.039" 109.497789°
NBU 1021-12B3DS	39°58'01.718" 39.967144°	109°29'54.646" 109.498513°
NBU 1021-12A2BS	39°58'09.870" 39.969408°	109°29'39.560" 109.494322°
NBU 1021-12B4BS	39°58'04.329" 39.967869°	109°29'48.208" 109.496725°

RELATIVE COORDINATES From Surface Position to Bottom Hole		
WELL	NORTH	EAST
NBU 1021-01O3AS	-24'	403'
NBU 1021-12B3DS	-1,533'	193'
NBU 1021-12A2BS	-690'	1,362'
NBU 1021-12B4BS	-1,231'	682'

BASIS OF BEARINGS IS THE WEST LINE OF THE NW 1/4 OF SECTION 7, T10S, R22E, S.L.B.&M. WHICH IS TAKEN FROM GLOBAL POSITIONING SATELLITE OBSERVATIONS TO BEAR N00°20'13"W.

N17°44'08"W
Az=342.26444°

NBU 1021-01O3AS
Az. to Exist. W.H.=230.21083° 232.1'

NBU 1021-12B3DS
Az. to Exist. W.H.=234.90111° 225.3'

NBU 1021-12A2BS
Az. to Exist. W.H.=239.89694° 220.2'

NBU 1021-12B4BS
Az. to Exist. W.H.=245.03778° 216.8'

20'
20'
20'

Az=93.39361°
S86°36'23"E - 403.22'
(To Bottom Hole)

Az=116.85667°
S63°08'36"E - 1526.49'
(To Bottom Hole)

Az=172.82944°
S07°10'14"E - 1545.43'
(To Bottom Hole)

Az=151.01250°
S28°59'15"E - 1407.51'
(To Bottom Hole)

SURFACE POSITION FOOTAGES:

NBU 1021-01O3AS
393' FSL & 2439' FEL

NBU 1021-12B3DS
374' FSL & 2433' FEL

NBU 1021-12A2BS
355' FSL & 2427' FEL

NBU 1021-12B4BS
336' FSL & 2422' FEL

NBU 1021-01O EXISTING WELL
245' FSL & 2619' FEL

BOTTOM HOLE FOOTAGES

NBU 1021-01O3AS
368' FSL & 2037' FEL

NBU 1021-12B3DS
1160' FNL & 2250' FEL

NBU 1021-12A2BS
338' FNL & 1070' FEL

NBU 1021-12B4BS
897' FNL & 1747' FEL

◉ EXISTING WELL: NBU 1021-01O

LATITUDE & LONGITUDE Surface Position - (NAD 27)		
WELL	N. LATITUDE	W. LONGITUDE
NBU 1021-01O3AS	39°58'17.179" 39.971439°	109°29'54.739" 109.498538°
NBU 1021-12B3DS	39°58'16.992" 39.971387°	109°29'54.662" 109.498517°
NBU 1021-12A2BS	39°58'16.803" 39.971334°	109°29'54.582" 109.498495°
NBU 1021-12B4BS	39°58'16.616" 39.971282°	109°29'54.504" 109.498473°
NBU 1021-01O Existing Well	39°58'15.711" 39.971031°	109°29'57.027" 109.499174°

LATITUDE & LONGITUDE Bottom Hole - (NAD 27)		
WELL	N. LATITUDE	W. LONGITUDE
NBU 1021-01O3AS	39°58'16.945" 39.971374°	109°29'49.570" 109.497103°
NBU 1021-12B3DS	39°58'01.843" 39.967179°	109°29'52.177" 109.497827°
NBU 1021-12A2BS	39°58'09.995" 39.969443°	109°29'37.092" 109.493637°
NBU 1021-12B4BS	39°58'04.455" 39.967904°	109°29'45.740" 109.496039°

N

60' 30' 0' 60'
SCALE

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 1021-01O

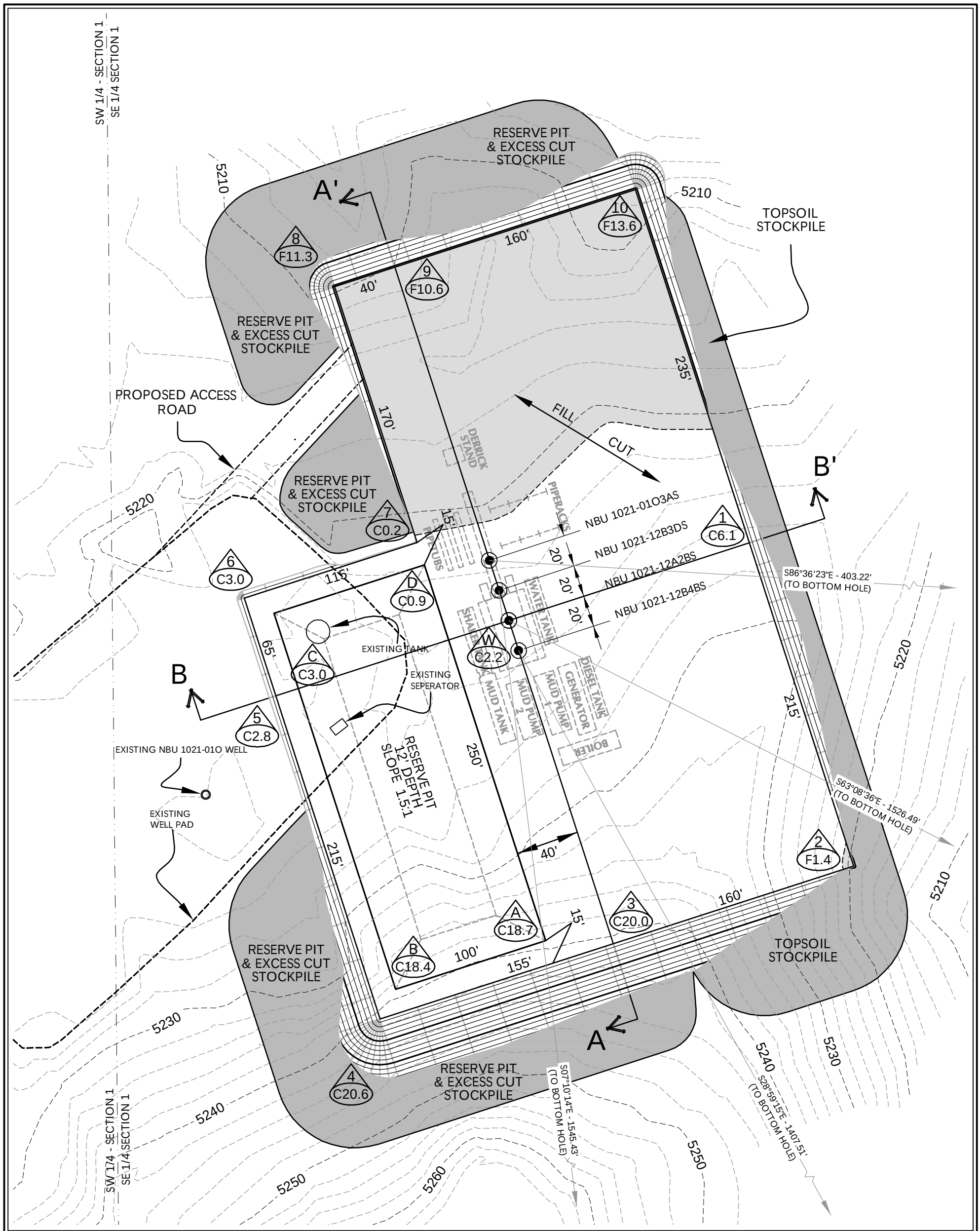
WELL PAD INTERFERENCE PLAT
NBU 1021-01O3AS, NBU 1021-12B3DS, NBU 1021-12A2BS & NBU 1021-12B4BS
LOCATED IN SECTION 1, T10S, R21E, S.L.B.&M., UINTAH COUNTY, UTAH.

609
CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 06-24-09	SURVEYED BY: D.J.S.	SHEET NO: 5
DATE DRAWN: 06-26-09	DRAWN BY: M.W.W.	5 OF 13
SCALE: 1" = 60'	Date Last Revised:	

'APIWellNo:43047508570000'



WELL PAD NBU 1021-01O QUANTITIES

EXISTING GRADE @ CENTER OF WELL PAD = 5222.9'
FINISHED GRADE ELEVATION = 5220.7'
CUT SLOPES = 1.5:1
FILL SLOPES = 1.5:1

TOTAL CUT FOR WELL PAD = 26,306 C.Y.
TOTAL FILL FOR WELL PAD = 7,319 C.Y.
TOPSOIL @ 6" DEPTH = 2,413 C.Y.
EXCESS MATERIAL = 18,987 C.Y.
TOTAL DISTURBANCE = 3.28 ACRES
SHRINKAGE FACTOR = 1.10
SWELL FACTOR = 1.00
RESERVE PIT CAPACITY (2' OF FREEBOARD)
+/- 32,370 BARRELS
RESERVE PIT VOLUME
+/- 8,510 CY

WELL PAD LEGEND

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PROPOSED BOTTOM HOLE LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)

HORIZONTAL 0 30 60 1" = 60'
2' CONTOURS

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 1021-01O

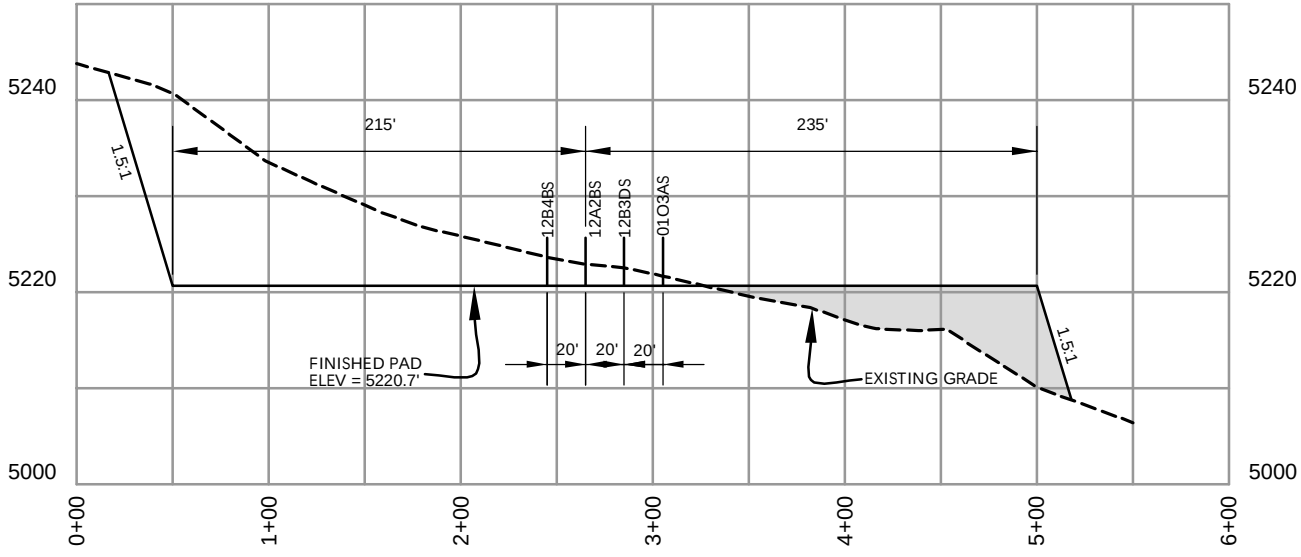
WELL PAD - LOCATION LAYOUT
NBU 1021-01O3AS, NBU 1021-12B3DS
NBU 1021-12A2BS & NBU 1021-12B4BS
LOCATED IN SECTION 1, T10S, R21E
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

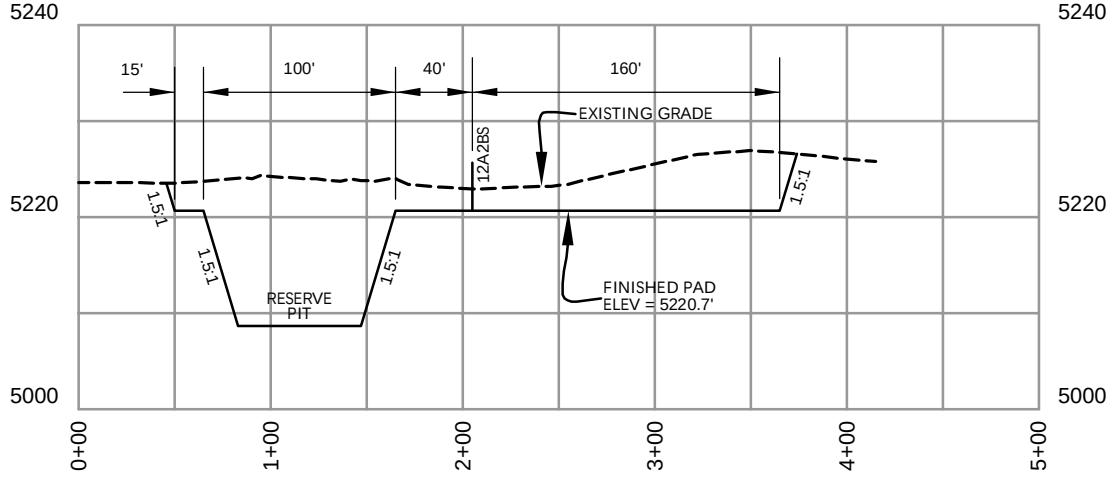
Scale: 1"=60' | Date: 6/30/09 | SHEET NO: 6 6 OF 13
REVISED:

TIMBERLINE ENGINEERING & LAND SURVEYING, INC. (435) 789-1365
209 NORTH 300 WEST - VERNAL, UTAH 84078

K:\ANADARKO\2009_11_NBU_Directional_UELS_Edits\DWGS\NBU 1021-01O\1021-01O.dwg, 7/2/2009 9:53:58 AM, PDF-XChange for AcroPlot Pro



CROSS SECTION A-A'



CROSS SECTION B-B'

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 1021-01O

WELL PAD - CROSS SECTIONS
NBU 1021-01O3AS, NBU 1021-12B3DS
NBU 1021-12A2BS & NBU 1021-12B4BS
LOCATED IN SECTION 1, T10S, R21E
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

HORIZONTAL 0 50 100 1" = 100'
VERTICAL 0 10 20 1" = 20'

Scale: 1"=100'	Date: 6/30/09	SHEET NO: 7 of 13
REVISED:		

TIMBERLINE ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078
(435) 789-1365

'APIWellNo:43047508570000'
K:\ANADARKO\2009_11_NBU_Directional_UELS_Edits\DWGS\NBU 1021-01O\1021-01O.dwg, 7/1/2009 4:40:32 PM, PDF-XChange for AcroPlot Pro

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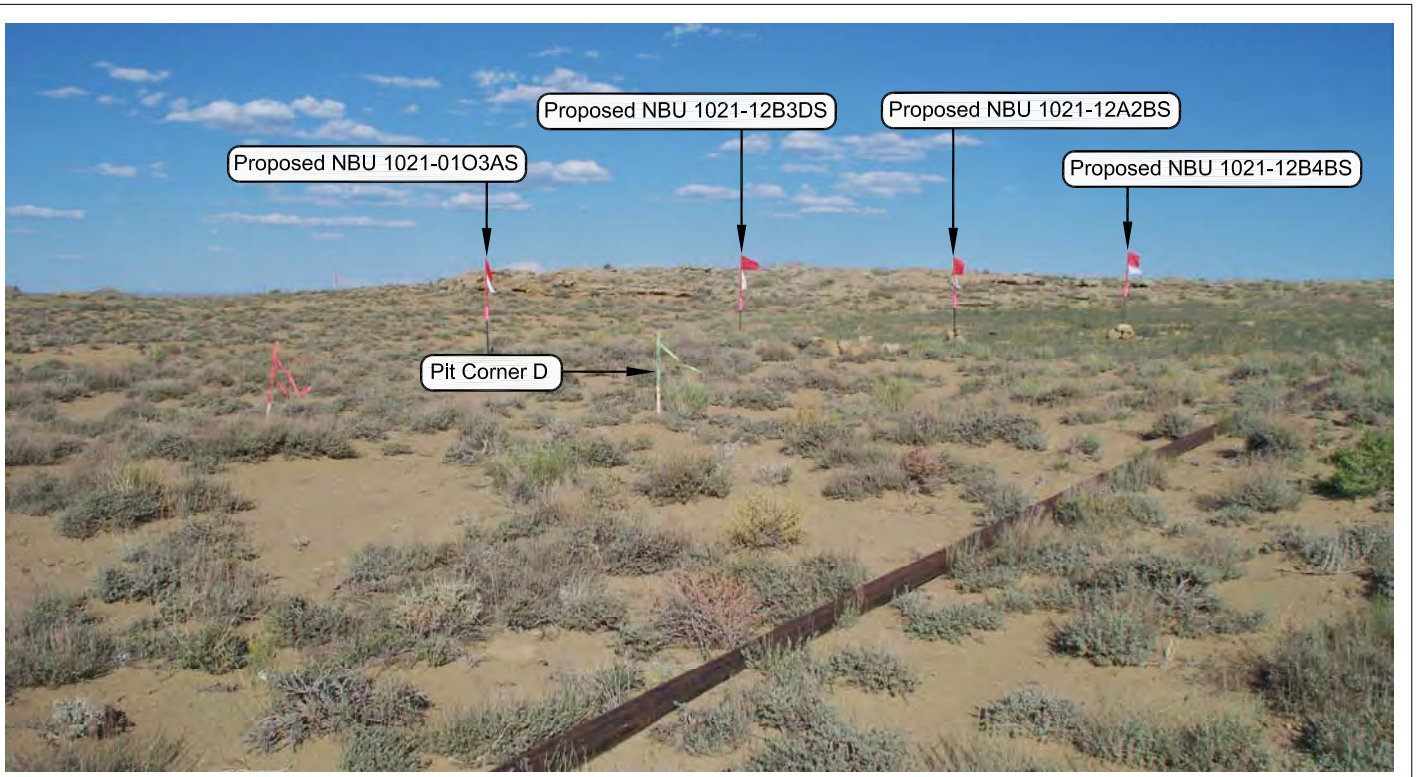


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE CAMERA ANGLE: SOUTHEASTERLY

PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD CAMERA ANGLE: NORTHEASTERLY

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

Well Pad - NBU 1021-01O

NBU 1021-01O3AS, NBU 1021-12B3DS, NBU 1021-12A2BS & NBU 1021-12B4BS LOCATION PHOTOS LOCATED IN SECTION 1, T10S, R21E, S.L.B.&M., UINTAH COUNTY, UTAH.

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE PHOTOS TAKEN: 06-24-09	PHOTOS TAKEN BY: D.J.S.	SHEET NO: 8
DATE DRAWN: 06-29-09	DRAWN BY: M.W.W.	
Date Last Revised:		8 OF 13

’APIWellNo:43047508570000’

’APIWellNo:43047508570000’

’APIWellNo:43047508570000’

’APIWellNo:43047508570000’

Kerr-McGee Oil & Gas Onshore, LP
WELL PAD - NBU 1021-01O
WELLS – NBU 1021-12B3DS, NBU 1021-12B4BS , NBU 1021-12A2BS & NBU 1021-01O3AS
Section 1, T10S, R21E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 13.9 MILES TO THE JUNCTION OF STATE HIGHWAY 88. EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION ALONG STATE HIGHWAY 88 APPROXIMATELY 16.8 MILES TO OURAY, UTAH. FROM OURAY, PROCEED IN A SOUTHERLY DIRECTION ALONG THE SEEP RIDGE ROAD (COUNTY B ROAD 2810) APPROXIMATELY 11.2 MILES TO THE INTERSECTION OF THE GLEN BENCH ROAD (COUNTY B ROAD 3260). EXIT LEFT AND PROCEED IN AN EASTERLY, THEN SOUTHEASTERLY, THEN NORTHEASTERLY DIRECTION ALONG THE GLEN BENCH ROAD APPROXIMATELY 8.1 MILES TO A CLASS D COUNTY ROAD TO THE SOUTHEAST. EXIT RIGHT AND PROCEED IN A SOUTHEASTERLY DIRECTION 0.6 MILES TO THE WEST SAND WASH ROAD (COUNTY B ROAD 4110). EXIT LEFT AND PROCEED IN AN EASTERLY, THEN SOUTHEASTERLY DIRECTION ALONG THE WEST SAND WASH ROAD APPROXIMATELY 0.9 MILES TO A SERVICE ROAD TO THE SOUTHEAST. EXIT LEFT AND PROCEED IN A SOUTHEASTERLY, THEN NORTHEASTERLY DIRECTION ALONG THE SERVICE ROAD APPROXIMATELY 0.5 MILES TO THE EXISTING ACCESS ROAD FOR THE NBU 1021-01O WELL PAD. EXIT RIGHT AND PROCEED IN AN EASTERLY DIRECTION ALONG THE ACCESS ROAD APPROXIMATELY 0.1 MILES TO THE NBU 1021-01O WELL PAD. PROCEED NORTHEASTERLY APPROXIMATELY 340 FEET CROSSING THE NBU 1021-01O WELL SITE AND TO THE PROPOSED ACCESS ROAD. FOLLOW ROAD FLAGS IN A NORTHEASTERLY DIRECTION APPROXIMATELY 120 FEET TO THE PROPOSED WELL PAD.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 52.2 MILES IN A SOUTHERLY DIRECTION.

NBU 1021-1O3AS
Surface: 393’ FSL 2,439’ FEL (SW/4SE/4) Section 1
BHL: 368’ FSL 2,037’ FEL (SW/4SE/4) Section 1

NBU 1021-12A2BS
Surface: 355’ FSL 2,427’ FEL (SW/4SE/4) Section 1
BHL: 338’ FNL 1,070’ FEL (NE/4NE/4) Section 12

NBU 1021-12B3DS
Surface: 374’ FSL 2,433’ FEL (SW/4SE/4) Section 1
BHL: 1,160’ FNL 2,250’ FEL (NW/4NE/4) Section 12

NBU 1021-12B4BS
Surface: 336’ FSL 2,422’ FEL (SW/4SE/4) Section 1
BHL: 897’ FNL 1,747’ FEL (NW/4NE/4) Section 12

Pad: NBU 1021-1O
T10S R21E
Mineral Lease: ML 23612

Uintah, Utah
Operator: Kerr-McGee Oil & Gas Onshore LP

ONSHORE ORDER NO. 1

MULTI-POINT SURFACE USE & OPERATIONS PLAN SUBMITTED WITH SITE-SPECIFIC INFORMATION

To schedule an onsite meeting, please contact Sheila Wopsock at 435-781-7024.

Directional Drilling:
In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, this well will be directionally drilled in order to access portions of our lease which are otherwise inaccessible due to topography.

A. Existing Roads:
A) Refer to Topo Map A for directions to the location.
B) Refer to Topo Maps A and B for location of access roads within a 2-mile radius.

B. **Planned Access Roads:**
See MDP for additional details on road construction.
Approximately ±120' (±0.02 miles) of new access road is proposed. Please refer to the attached Topo Map B. No pipelines will be crossed with the new construction.

Existence of pipelines; maximum grade; turnouts; major cut and fills, culverts, or bridges; gates, cattle guards, fence cuts, or modifications to existing facilities were determined at the on-site and are typically shown on the attached Exhibits and Topo maps.

C. **Location of Existing Wells Within a 1-Mile Radius:**
Please refer to Topo Map C.

D. **Location of Existing and Proposed Facilities:**
See MDP for additional details on Existing and Proposed Facilities.

This pad will expand the existing pad for the NBU 1021-1O well, which is a producing well according to Utah Division of Oil, Gas and Mining (UDOGM) records.

The following guidelines will apply if the well is productive.
Approximately ±105' (±0.02 miles) of new pipeline is proposed including another approximately ±660' (±0.04 miles) of proposed pipeline around the pad**.** Another approximately ±4,665' (±0.88 miles) of existing pipeline will be upgraded to accommodate anticipated production from the proposed wells. The upgraded pipeline will follow the same route as the existing pipeline. Please refer to Topo D for the existing pipeline. Pipeline segments will be welded or zaplocked together on disturbed areas in or near the location, whenever possible, and dragged into place.

E. **Location and Type of Water Supply:**
See MDP for additional details on Location and Type of Water Supply.

Water for drilling purposes will be obtained from one of the following sources:

- Dalbo Inc.'s underground well located in Ouray, Utah, Sec. 32 T4S R3E, Water User Claim number 43-8496, application number 53617.
- Price Water Pumping Inc. Green River and White River, various sources, Water Right Number 49-1659, application number: a35745.

Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

F. **Source of Construction Materials:**
See MDP for additional details on Source of Construction Materials.

G. **Methods of Handling Waste Materials:**
See MDP for additional details on Methods of Handling Waste Materials.

Any produced water from the proposed well will be contained in a water tank and will then be hauled by truck to one of the pre-approved disposal sites:

RNI in Sec. 5 T9S R22E
NBU #159 in Sec. 35 T9S R21E
Ace Oilfield in Sec. 2 T6S R20E
MC&MC in Sec. 12 T6S R19E
Pipeline Facility in Sec. 36 T9S R20E
Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E
Bonanza Evaporation Pond in Sec. 2 T10S R23E

H. **Ancillary Facilities:**
See MDP for additional details on Ancillary Facilities.

None are anticipated.

I. **Well Site Layout:** (See Location Layout Diagram)
See MDP for additional details on Well Site Layout.

All pits will be fenced according to the following minimum standards:

- Net wire (39-inch) will be used with at least one strand of barbed wire on top of the net wire. Barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence.
- The net wire shall be no more than two inches above the ground. The barbed wire shall be three inches over the net wire. Total height of the fence shall be at least 42 inches.
- Corner posts shall be cemented and/or braced in such a manner to keep the fence tight at all times.
- Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.
- All wire shall be stretched, by using a stretching device, before it is attached to corner posts.

J. **Plans for Reclamation of the Surface:**
See MDP for additional details on Plans for Reclamation of the Surface.

K. **Surface/Mineral Ownership:**
SITLA
675 East 500 South, Suite 500
Salt Lake City, UT 84102

L. **Other Information:**
See MDP for additional details on Other Information.

M. Lessee's or Operators' Representative & Certification:

Danielle Piernot
Regulatory Analyst
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6156

Tommy Thompson
General Manager, Drilling
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by State Surety Bond 22013542.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Danielle Piernot
Danielle Piernot

December 18, 2009
Date

'APIWellNo:43047508570000'

Kerr-McGee Oil & Gas Onshore LP
1999 Broadway, Suite 3700
Denver, CO 80205

December 16, 2009

Mrs. Diana Mason
Division of Oil, Gas and Mining
P.O. Box 145801
Salt Lake City, UT 84114-6100

Re: Directional Drilling R649-3-11
NBU 1021-12B4BS
T10S R21E
Section 12: SWSE/NWNE
336' FSL, 2422' FEL (surface)
897' FNL, 1747' FEL
Uintah County, Utah

Dear Mrs. Mason:

Pursuant to the filing of Kerr-McGee Oil & Gas Onshore LP's (Kerr-McGee) Application for Permit to Drill regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to the Directional Drilling of Wells.

- Kerr-McGee's NBU 1021-12B4BS is located within the Natural Buttes Unit area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing road and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore

Therefore, based on the above stated information Kerr-McGee Oil & Gas Onshore LP requests the permit be granted pursuant to R649-3-11.

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

Jason K. Rayburn
Landman

CLASS I REVIEW OF KERR-MCGEE OIL AND GAS ONSHORE LP'S PROPOSED DRILL LOCATIONS: NBU 1021-01O3AS, NBU 1021-12A2BS, NBU 1021-12B3DS, AND NBU 1021-12B4BS (T10S, R21E, SEC. 1) UINTAH COUNTY, UTAH

By:

Jacki A. Montgomery

Prepared For:

Bureau of Land Management
Vernal Field Office
and
School and Institutional Trust Lands Administration
Salt Lake City

Prepared Under Contract With:

Kerr-McGee Oil and Gas Onshore LP
1368 South 1200 East
Vernal, Utah 84078

Prepared By:

Montgomery Archaeological Consultants, Inc.
P.O. Box 219
Moab, Utah 84532

MOAC Report No. 09-125

August 25, 2009

United States Department of Interior (FLPMA)
Permit No. 09-UT-60122

Public Lands Policy Coordination Office
Archaeological Survey Permit No. 117

IPC #09-125

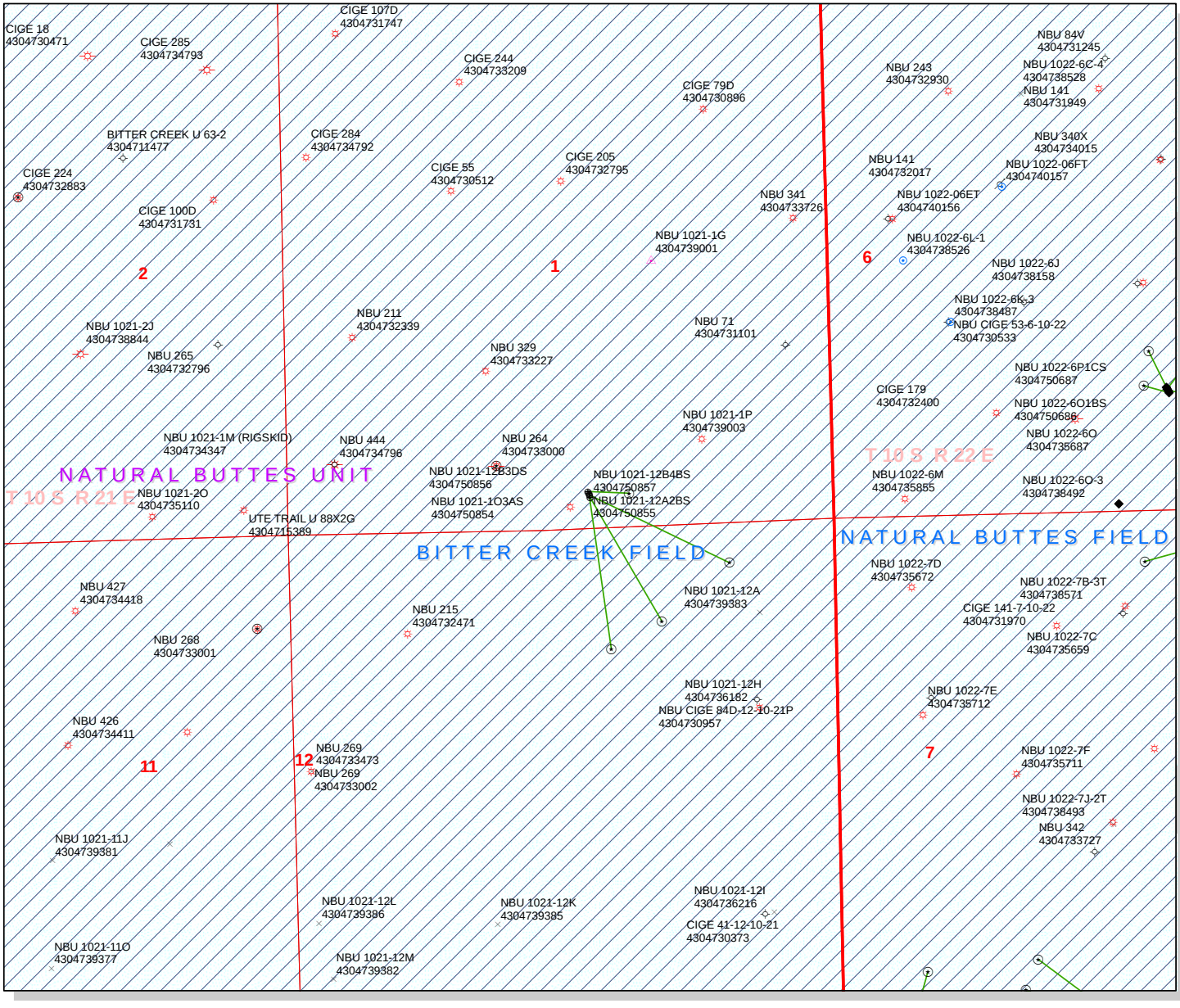
Paleontological Reconnaissance Survey Report

Survey of Kerr McGee's Proposed Multi-Well Pad, Access Road, Pipeline, and Pipeline Upgrade for "NBU 1021-01O with wells NBU #1021-01O3AS, 12B3DS, 12A2BS, & 12B4BS" (Sec. 1, 2, 11 & 12, T 10 S, R 21 E)

Archy Bench & Big Pack Mtn NE
Topographic Quadrangles
Uintah County, Utah

August 12, 2009

Prepared by Stephen D. Sandau
Paleontologist for
Intermountain Paleo-Consulting
P. O. Box 1125
Vernal, Utah 84078



API Number: 4304750857

Well Name: NBU 1021-12B4BS

Township 10.0 S Range 21.0 E Section 1

Meridian: SLBM

Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared:
Map Produced by Diana Mason

Units

STATUS
- ACTIVE
- EXPLORATORY
- GAS STORAGE
- NF PP OIL
- NF SECONDARY
- PI OIL
- PP GAS
- PP GEOTHERML
- PP OIL
- SECONDARY
- TERMINATED

Fields

STATUS
- Unknown
- ABANDONED
- ACTIVE
- COMBINED
- INACTIVE
- STORAGE
- TERMINATED
- Sections
- Township

Wells Query

<all other values>

Status
- APD - Aproved Permit
- DRL - Spuded (Drilling Commenced)
- GIW - Gas Injection
- GS - Gas Storage
- LA - Location Abandoned
- LOC - New Location
- OPS - Operation Suspended
- PA - Plugged Abandoned
- PGW - Producing Gas Well
- POW - Producing Oil Well
- RET - Returned APD
- SGW - Shut-in Gas Well
- SOW - Shut-in Oil Well
- TA - Temp. Abandoned
- TW - Test Well
- WDW - Water Disposal
- WIW - Water Injection Well
- WSW - Water Supply Well

1,250 625 0 1,250 Feet

1:12,000

'APIWellNo:43047508570000'

’APIWellNo:43047508570000’

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:
3160
(UT-922)

January 11, 2010

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2010 Plan of Development Natural Buttes Unit
Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2010 within the Natural Buttes Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
43-047-50854	NBU 1021-1O3AS	Sec 01 T10S R21E 0393 FSL 2439 FEL BHL Sec 01 T10S R21E 0368 FSL 2037 FEL
43-047-50855	NBU 1021-12A2BS	Sec 01 T10S R21E 0355 FSL 2427 FEL BHL Sec 12 T10S R21E 0338 FNL 1070 FEL
43-047-50856	NBU 1021-12B3DS	Sec 01 T10S R21E 0374 FSL 2433 FEL BHL Sec 12 T10S R21E 1160 FNL 2250 FEL
43-047-50857	NBU 1021-12B4BS	Sec 01 T10S R21E 0336 FSL 2422 FEL BHL Sec 12 T10S R21E 0897 FNL 1747 FEL
43-047-50865	NBU 921-11L	Sec 11 T09S R21E 2410 FSL 0358 FWL
43-047-50866	NBU 921-11N	Sec 11 T09S R21E 0322 FSL 2386 FWL
43-047-50867	NBU 921-12P	Sec 12 T09S R21E 1128 FSL 1300 FEL
43-047-50872	NBU 921-27D3AS	Sec 27 T09S R21E 2151 FNL 2041 FWL BHL Sec 27 T09S R21E 0957 FNL 0472 FWL
43-047-50873	NBU 921-27E2AS	Sec 27 T09S R21E 2169 FNL 2049 FWL BHL Sec 27 T09S R21E 1443 FNL 0598 FWL
43-047-50874	NBU 921-27F2BS	Sec 27 T09S R21E 2132 FNL 2033 FWL BHL Sec 27 T09S R21E 1443 FNL 1570 FWL

API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
43-047-50875	NBU 921-27F3CS	Sec 27 T09S R21E 2187 FNL 2057 FWL BHL Sec 27 T09S R21E 2486 FNL 1582 FWL
43-047-50876	NBU 921-27F4DS	Sec 27 T09S R21E 2206 FNL 2065 FWL BHL Sec 27 T09S R21E 2467 FNL 2440 FWL
43-047-50877	NBU 921-27C1BS	Sec 27 T09S R21E 1710 FNL 2189 FEL BHL Sec 27 T09S R21E 0056 FNL 2238 FWL
43-047-50878	NBU 921-27C3BS	Sec 27 T09S R21E 1750 FNL 2184 FEL BHL Sec 27 T09S R21E 0971 FNL 1423 FWL
43-047-50879	NBU 921-27C4DS	Sec 27 T09S R21E 1730 FNL 2187 FEL BHL Sec 27 T09S R21E 1191 FNL 2525 FWL
43-047-50880	NBU 921-27G2CS	Sec 27 T09S R21E 1770 FNL 2181 FEL BHL Sec 27 T09S R21E 1904 FNL 2565 FEL

This office has no objection to permitting the wells at this time.

/s/ Michael L. Coulthard

bcc: File - Natural Buttes Unit
Division of Oil Gas and Mining
Central Files
Agr. Sec. Chron
Fluid Chron

MCoulthard:mc:1-11-10

BOPE REVIEW KERR-MCGEE OIL & GAS ONSHORE, L.P. NBU 1021-12B4BS 43047508570000

Well Name	KERR-MCGEE OIL & GAS ONSHORE, L.P. NBU 1021-12B4BS 430475085			
String	Surf	Prod		
Casing Size(")	8.625	4.500		
Setting Depth (TVD)	2225	9385		
Previous Shoe Setting Depth (TVD)	40	2225		
Max Mud Weight (ppg)	8.4	11.6		
BOPE Proposed (psi)	500	5000		
Casing Internal Yield (psi)	3390	7780		
Operators Max Anticipated Pressure (psi)	5537	11.3		

Calculations	Surf String	8.625	"
Max BHP (psi)	.052*Setting Depth*MW=	972	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	705	NO Air drill
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	483	YES OK
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	491	NO Reasonable
Required Casing/BOPE Test Pressure=		2225	psi
*Max Pressure Allowed @ Previous Casing Shoe=		40	psi *Assumes 1psi/ft frac gradient

Calculations	Prod String	4.500	"
Max BPH (psi)	.052*Setting Depth*MW=	5661	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	4535	YES
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	3596	YES OK
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	4086	NO Reasonable
Required Casing/BOPE Test Pressure=		5000	psi
*Max Pressure Allowed @ Previous Casing Shoe=		2225	psi *Assumes 1psi/ft frac gradient

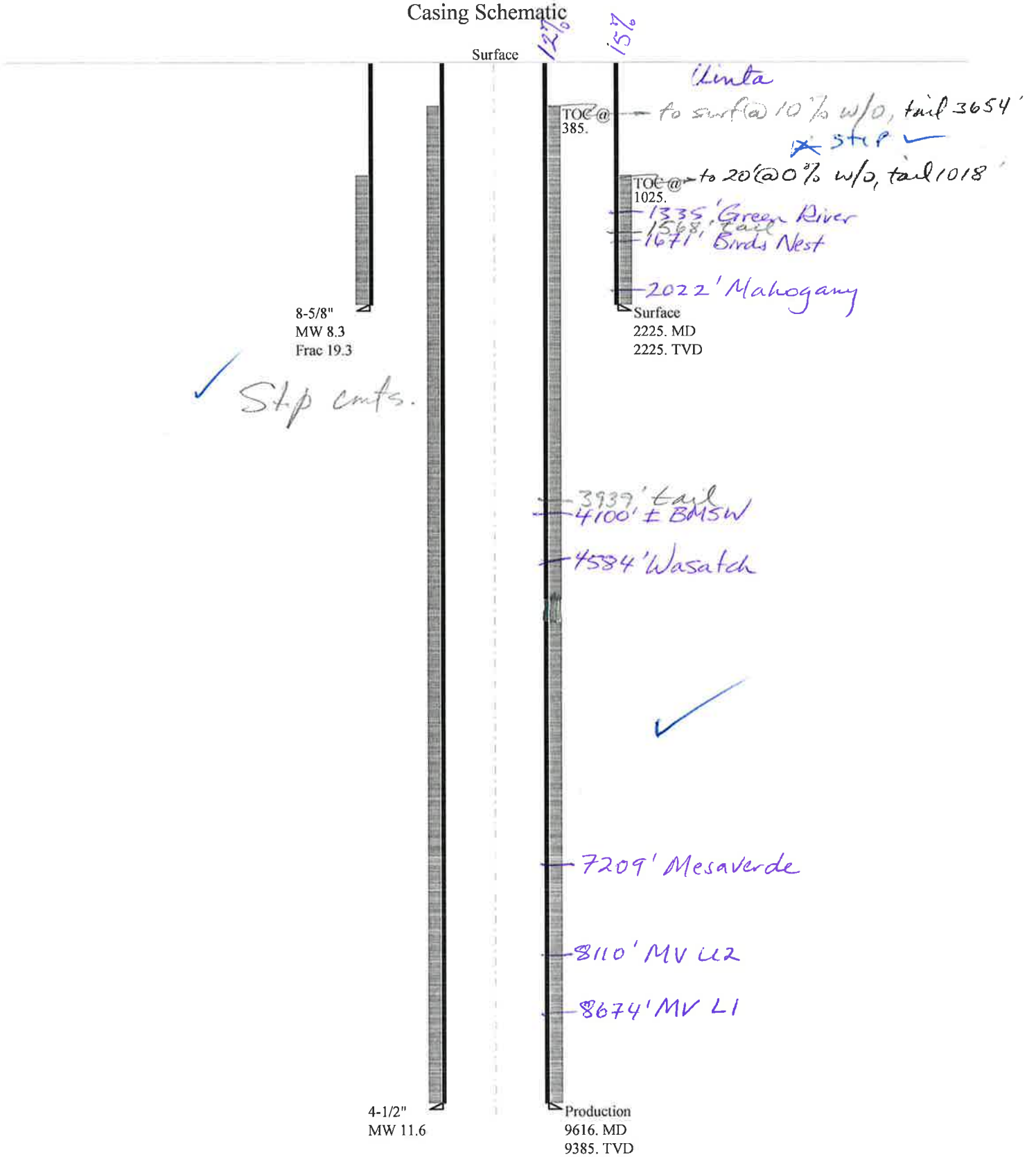
Calculations	String		"
Max BHP (psi)	.052*Setting Depth*MW=		
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		NO
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=		NO
Required Casing/BOPE Test Pressure=			psi
*Max Pressure Allowed @ Previous Casing Shoe=			psi *Assumes 1psi/ft frac gradient

Calculations	String		"
Max BHP (psi)	.052*Setting Depth*MW=		
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		NO
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=		NO
Required Casing/BOPE Test Pressure=			psi
*Max Pressure Allowed @ Previous Casing Shoe=			psi *Assumes 1psi/ft frac gradient

'APIWellNo:43047508570000'

43047508570000 NBU 1021-12B4BS

Casing Schematic



'APIWellNo:43047508570000'

Well name:	**43047508570000 NBU 1021-12B4BS**
Operator:	**KERR-MCGEE OIL & GAS ONSHORE, L.P.**
String type:	Surface
Project ID:	43-047-50857
Location:	UINTAH COUNTY

Design parameters:

Collapse
Mud weight: 8.330 ppg
Design is based on evacuated pipe.

Burst
Max anticipated surface pressure: 1,958 psi
Internal gradient: 0.120 psi/ft
Calculated BHP 2,225 psi

No backup mud specified.

Minimum design factors:

Collapse:
Design factor 1.125

Burst:
Design factor 1.00

Tension:
8 Round STC: 1.80 (J)
8 Round LTC: 1.70 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.50 (B)

Tension is based on air weight.
Neutral point: 1,952 ft

Environment:
H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 105 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 100 ft

Cement top: 1,025 ft

Non-directional string.

Re subsequent strings:
Next setting depth: 9,385 ft
Next mud weight: 11.600 ppg
Next setting BHP: 5,655 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 2,225 ft
Injection pressure: 2,225 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
1	2225	8.625	28.00	I-55	LT&C	2225	2225	7.892	88110

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	963	1880	1.953	2225	3390	1.52	62.3	348	5.59 J

Prepared by: Helen Sadik-Macdonald
Div of Oil,Gas & Mining
Phone: 801 538-5357
FAX: 801-359-3940
Date: February 1,2010
Salt Lake City, Utah

Remarks:
Collapse is based on a vertical depth of 2225 ft, a mud weight of 8.33 ppg The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

'APIWellNo:43047508570000'

Well name:	**43047508570000 NBU 1021-12B4BS**
Operator:	**KERR-MCGEE OIL & GAS ONSHORE, L.P.**
String type:	Production
Project ID:	43-047-50857
Location:	UINTAH COUNTY

Design parameters:

Collapse
Mud weight: 11.600 ppg
Design is based on evacuated pipe.

Burst
Max anticipated surface pressure: 3,591 psi
Internal gradient: 0.220 psi/ft
Calculated BHP 5,655 psi

No backup mud specified.

Minimum design factors:

Collapse:
Design factor 1.125

Burst:
Design factor 1.00

Tension:
8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.60 (B)

Tension is based on air weight.
Neutral point: 7,989 ft

Environment:
H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 205 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 100 ft

Cement top: 385 ft

Directional Info - Build & Drop
Kick-off point 2272 ft
Departure at shoe: 1407 ft
Maximum dogleg: 3 °/100ft
Inclination at shoe: 0 °

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
1	9616	4.5	11.60	I-80	LT&C	9385	9616	3.875	126931

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	5655	6360	1.125	5655	7780	1.38	108.9	212	1.95 J

Prepared by: Helen Sadik-Macdonald
Div of Oil,Gas & Mining
Phone: 801 538-5357
FAX: 801-359-3940
Date: February 1,2010
Salt Lake City, Utah

Remarks:
Collapse is based on a vertical depth of 9385 ft, a mud weight of 11.6 ppg The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.
Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

Engineering responsibility for use of this design will be that of the purchaser.

’APIWellNo:43047508570000’

From: Jim Davis
To: Bonner, Ed; Hill, Brad; Mason, Diana
CC: Danielle Piernot; Garrison, LaVonne; Hayden, Martha; kathy.schneebeck...
Date: 2/8/2010 12:29 PM
Subject: Kerr McGee APD approvals and Paleo stipulations (13)

The following APDs have been approved by SITLA including arch and paleo clearance- with the following stipulations.

The paleo report for these wells recommends that spot monitoring should be done if the pipelines attending these wells are going to be buried. That recommendation is being made a condition of SITLA's approval of these APDs.

4304750854 NBU 1021-1O3AS
4304750855 NBU 1021-12A2BS
4304750856 NBU 1021-12B3DS
4304750857 NBU 1021-12B4BS

The paleo report for these wells recommends that paleo monitoring be conducted during construction. That recommendation is being made a condition of SITLA's approval of these APDs.

4304750872 NBU 921-27D3AS
4304750873 NBU 921-27E2AS
4304750874 NBU 921-27F2BS
4304750875 NBU 921-27F3CS
4304750876 NBU 921-27F4DS
4304750877 NBU 921-27C1BS
4304750878 NBU 921-27C3BS
4304750879 NBU 921-27C4DS
4304750880 NBU 921-27G2CS

Thanks.
-Jim

Jim Davis
Utah Trust Lands Administration
jimdavis1@utah.gov
Phone: (801) 538-5156

ON-SITE PREDRILL EVALUATION
Utah Division of Oil, Gas and Mining

Operator	KERR-MCGEE OIL & GAS ONSHORE, L.P.				
Well Name	NBU 1021-12B4BS				
API Number	43047508570000	**APD No**	2235	**Field/Unit**	NATURAL BUTTES
Location: 1/4,1/4	SWSE **Sec** 1 **Tw** 10.0S **Rng** 21.0E 336 FSL 2422 FEL				
GPS Coord (UTM)	628221 4425456	**Surface Owner**			

Participants

Floyd Bartlett (DOGM), Sheila Wopsock, Clay Einerson, Tony Kazeck, Ramie Hoopes, Joe Bowden, Jeff Samuels (Kerr McGee), Mitch.Batty, John Slaugh, (Timberline Engineering and Land Surveying), Jim Davis (SITLA), Ben Williams, Alex Hansen (UDWR).

Regional/Local Setting & Topography

This location is in the Natural Buttes Unit approximately 21.5 road miles southeast of Ouray, Utah. It is accessed by the Seep Ridge Road to the Uintah County Middle Road then by existing oil field development roads to within 120 feet which will require new construction

The general area is a sub-drainage of Sand Wash. This drainage enters the White River approximately five miles to the north. The area is characterized by rolling hills, which are frequently divided by somewhat gentle draws that drain northerly. All drainages are ephemeral. No springs, seeps or streams exist in the area. An occasional pond constructed to supply water for cattle and antelope exists. Tributaries are sometimes rimed with steep side hills, which have exposed sand stone bedrock cliffs along the rims.

Four gas wells are proposed to be directionally drilled from this pad which partially over laps the existing pad of the NBU 1021-01O producing gas well. The new wells are the NBU 1021-01O3AS, NBU 1021-12B3DS, NBU 1021-12A2BS and NBU 1021-12B4BS. The pad will be constructed on the west slope of a rolling to moderately steep sidehill. A rise to the south will be cut and moved to the north. To the east the slope breaks off into rougher terrain that drains northerly toward Sand Wash. The reserve pit will be reduced in length from 250 feet as shown to 200 feet with the reduction to occur on the north end. The selected site is the best location in the immediate area and should be suitable for drilling and operating the proposed wells.

Both the surface and minerals are owned by SITLA.

Surface Use Plan

Current Surface Use
Grazing
Wildlfe Habitat
Existing Well Pad

New Road Miles	**Well Pad**	**Src Const Material**	**Surface Formation**
0.03	**Width** 315 **Length** 450	Onsite	UNTA

Ancillary Facilities N

Waste Management Plan Adequate?

Environmental Parameters

Affected Floodplains and/or Wetlands N

Flora / Fauna

Vegetation is a salt desert shrub type. About 8 inches of snow covered the area. Principal species identified were Indian rice grass, cheatgrass, halogeton, pepper grass, annuals and curly mesquite grass.

Cattle, antelope and small mammals and birds.

Soil Type and Characteristics

Soils are a shallow rocky sandy loam.

Erosion Issues N

Sedimentation Issues N

Site Stability Issues N

Drainage Diverson Required? N

Berm Required? N

Erosion Sedimentation Control Required? N

Paleo Survey Run? Y **Paleo Potental Observed?** N **Cultural Survey Run?** Y **Cultural Resources?**

Reserve Pit

Site-Specific Factors		Site Ranking	
Distance to Groundwater (feet)	100 to 200	5	
Distance to Surface Water (feet)	>1000	0	
Dist. Nearest Municipal Well (ft)	>5280	0	
Distance to Other Wells (feet)		20	
Native Soil Type	Mod permeability	10	
Fluid Type	Fresh Water	5	
Drill Cuttings	Normal Rock	0	
Annual Precipitation (inches)		0	
Affected Populations			
Presence Nearby Utility Conduits	Not Present	0	
	Final Score	40	1 Sensitivity Level

Characteristics / Requirements

The reserve pit is planned in an area of cut in the southwest corner of the location. Dimensions are 100' x 200' x 12' deep with 2' of freeboard. Kerr McGee proposed to line the pit with a 30-mil liner and 2 layers of felt. It will be reduced in length from 250 feet as shown to 200 feet with the reduction to occur on the north end

Closed Loop Mud Required? N **Liner Required?** Y **Liner Thickness** 30 **Pit Underlayment Required?** Y

Other Observations / Comments

Floyd Bartlett	1/12/2010
Evaluator	**Date / Time**

Application for Permit to Drill
Statement of Basis

APD No	API WellNo	Status	Well Type	Surf Owner	CBM
2235	43047508570000	SITLA	GW	S	No

Operator	KERR-MCGEE OIL & GAS ONSHORE, L.P.	**Surface Owner-APD**	
Well Name	NBU 1021-12B4BS	**Unit**	NATURAL BUTTES
Field	NATURAL BUTTES	**Type of Work**	DRILL
Location	SWSE 1 10S 21E S 336 FSL 2422 FEL	GPS Coord (UTM)	628242E 4425439N

Geologic Statement of Basis

Kerr McGee proposes to set 2,220 of surface casing at this location. The depth to the base of the moderately saline water at this location is estimated to be at a depth of 4,100'. A search of Division of Water Rights records shows one water well within a 10,000 foot radius of the center of Section 1. The well has a depth of 2,640 feet, and its listed use is for oilfield drilling. The surface formation at this site is the Uinta Formation. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a significant source of useable ground water. Production casing cement should be brought up above the base of the moderately saline ground water to isolate it from fresher waters uphole.

Brad Hill	1/20/2010
APD Evaluator	**Date / Time**

Surface Statement of Basis

This location is in the Natural Buttes Unit approximately 21.5 road miles southeast of Ouray, Utah. It is accessed by the Seep Ridge Road to the Uintah County Middle Road then by existing oil field development roads to within 120 feet which will require new construction

The general area is a sub-drainage of Sand Wash. This drainage enters the White River approximately five miles to the north. The area is characterized by rolling hills, which are frequently divided by somewhat gentle draws that drain northerly. All drainages are ephemeral. No springs, seeps or streams exist in the area. An occasional pond constructed to supply water for cattle and antelope exists. Tributaries are sometimes rimed with steep side hills, which have exposed sand stone bedrock cliffs along the rims.

Four gas wells are proposed to be directionally drilled from this pad which partially over laps the existing pad of the NBU 1021-01O producing gas well. The new wells are the NBU 1021-01O3AS, NBU 1021-12B3DS, NBU 1021-12A2BS and NBU 1021-12B4BS. The pad will be constructed on the west slope of a rolling to moderately steep sidehill. A rise to the south will be cut and moved to the north. To the east the slope breaks off into rougher terrain that drains northerly toward Sand Wash. The reserve pit will be reduced in length from 250 feet as shown to 200 feet with the reduction to occur on the north end. The selected site is the best location in the immediate area and should be suitable for drilling and operating the proposed wells.

Both the surface and minerals are owned by SITLA. Jim Davis of SITLA attended the site evaluation and had no concerns with the proposal. Kerr McGee was told to consult with SITLA for reclamation standards including seeding mixes to be used.

Alex Hansen and Ben Williams of the Utah Division of Wildlife Resources attended. It was stated that the area was yearlong antelope habitat but no stipulations for this species was recommended. No other wildlife is expected to be significantly affected.

Floyd Bartlett	1/12/2010
Onsite Evaluator	**Date / Time**

Application for Permit to Drill
Statement of Basis

Conditions of Approval / Application for Permit to Drill

Category	Condition
Pits	A synthetic liner with a minimum thickness of 30 mils with a felt subliner shall be properly installed and maintained in the reserve pit.
Surface	The reserve pit shall be fenced upon completion of drilling operations.

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 12/18/2009 **API NO. ASSIGNED:** 43047508570000

WELL NAME: NBU 1021-12B4BS

OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995) **PHONE NUMBER:** 720 929-6156

CONTACT: Danielle Piernot

PROPOSED LOCATION: SWSE 1 100S 210E **Permit Tech Review:** ☑

SURFACE: 0336 FSL 2422 FEL **Engineering Review:** ☑

BOTTOM: 0897 FNL 1747 FEL **Geology Review:** ☑

COUNTY: UINTAH

LATITUDE: 39.97128 **LONGITUDE:** -109.49833

UTM SURF EASTINGS: 628242.00 **NORTHINGS:** 4425439.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 3 - State

LEASE NUMBER: ML 23612 **PROPOSED PRODUCING FORMATION(S):** WASATCH-MESA VERDE

SURFACE OWNER: 3 - State **COALBED METHANE:** NO

RECEIVED AND/OR REVIEWED:

- ☑ **PLAT**
- ☑ **Bond:** STATE/FEE - 22013542
- ☐ **Potash**
- ☑ **Oil Shale 190-5**
- ☐ **Oil Shale 190-3**
- ☐ **Oil Shale 190-13**
- ☑ **Water Permit:** Permit #43-8496
- ☐ **RDCC Review:**
- ☐ **Fee Surface Agreement**
- ☑ **Intent to Commingle**

Commingling Approved

LOCATION AND SITING:

- ☐ **R649-2-3.**

Unit: NATURAL BUTTES

- ☐ **R649-3-2. General**
- ☐ **R649-3-3. Exception**
- ☑ **Drilling Unit**

Board Cause No: Cause 173-14

Effective Date: 12/2/1999

Siting: 460' fr u boundary and uncommited tract

- ☑ **R649-3-11. Directional Drill**

Comments: Presite Completed

Stipulations:

3 - Commingling - ddoucet
5 - Statement of Basis - bhill
8 - Cement to Surface -- 2 strings - hmacdonald
15 - Directional - dmason
17 - Oil Shale 190-5(b) - dmason

GARY R. HERBERT
Governor
GREGORY S. BELL
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES
MICHAEL R. STYLER
Executive Director
Division of Oil, Gas and Mining
JOHN R. BAZA
Division Director

Permit To Drill

****

Well Name: NBU 1021-12B4BS
API Well Number: 43047508570000
Lease Number: ML 23612
Surface Owner: STATE
Approval Date: 2/16/2010

Issued to:
KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

Authority:
Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-14. The expected producing formation or pool is the WASATCH-MESA VERDE Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:
This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

Commingle:
In accordance with Board Cause No. 173-14, commingling of the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

General:
Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:
In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

Cement volumes for the 8 5/8" and 4 1/2" casing strings shall be determined from actual hole

diameters in order to place cement from the pipe setting depths back to the surface as stated in drill plan.

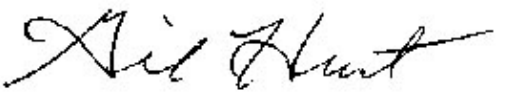
Additional Approvals:
The operator is required to obtain approval from the Division of Oil, Gas and mining before performing any of the following actions during the drilling of this well:
- Any changes to the approved drilling plan – contact Dustin Doucet
- Significant plug back of the well – contact Dustin Doucet
- Plug and abandonment of the well – contact Dustin Doucet

Notification Requirements:
The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:
- Within 24 hours following the spudding of the well – contact Carol Daniels
  OR
  submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at https://oilgas.ogm.utah.gov
- 24 hours prior to testing blowout prevention equipment - contact Dan Jarvis
- 24 hours prior to cementing or testing casing – contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program – contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well – contact Dan Jarvis

Contact Information:
The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voicemail message if the person is not available to take the call):
- Carol Daniels 801-538-5284 - office
- Dustin Doucet 801-538-5281 - office
  801-733-0983 - after office hours
- Dan Jarvis 801-538-5338 - office
  801-231-8956 - after office hours

Reporting Requirements:
All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:
- Entity Action Form (Form 6) – due within 5 days of spudding the well
- Monthly Status Report (Form 9) – due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) – due prior to implementation
- Written Notice of Emergency Changes (Form 9) – due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) – due prior to implementation
- Report of Water Encountered (Form 7) – due within 30 days after completion
- Well Completion Report (Form 8) – due within 30 days after completion or plugging

Approved By:



Gil Hunt
Associate Director, Oil & Gas

API Well No: 43047508570000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: ML 23612

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 1021-12B4BS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047508570000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6007 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0336 FSL 2422 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSE Section: 1 Township: 10.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 4/12/2010	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	✓ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

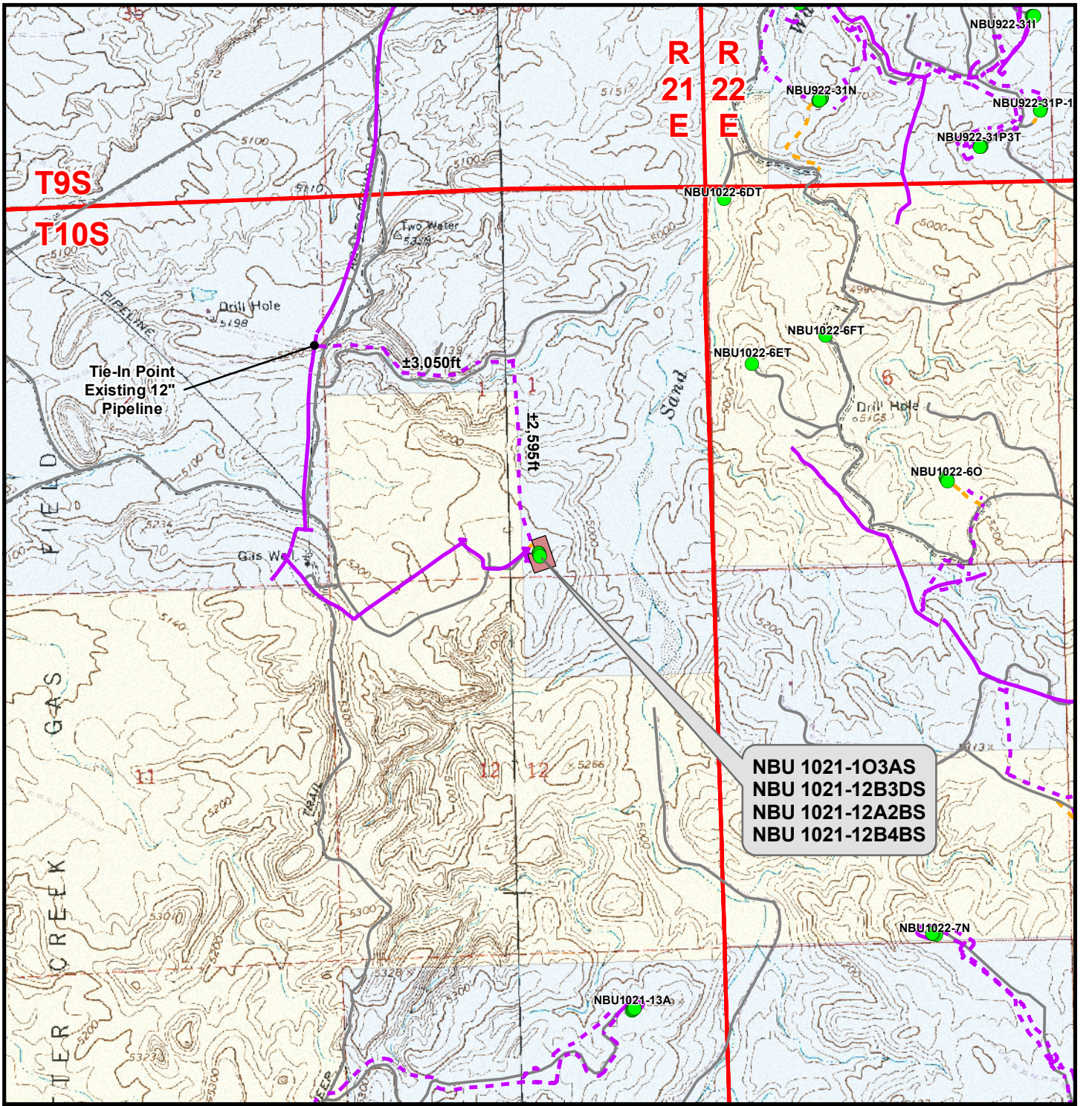
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee) respectfully requests to change the size of the pipeline for this location. The ±2,595' potion of pipeline that is traveling northerly from the well pad will be a buried 6" pipeline and the ±3,050' portion of pipeline traveling westerly to the tie in point will be a buried 10" pipeline. The pipeline will follow the same route as detailed in the sundry notice accepted for record on March 23, 2010. Please see the attached pipeline plat for additional details. Please contact the undersigned with any questions and/or comments. Thank you.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
April 08, 2010

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Danielle Piernot	720 929-6156	Regulatory Analyst
SIGNATURE N/A		**DATE** 4/8/2010

RECEIVED April 08, 2010



Legend

Proposed Pipeline Length From Tie-In Point To Edge Of Pad: ±5,645ft
Proposed Pipeline Length Around Pad: ±660ft

Well - Proposed | Well Pad | Road - Proposed | Pipeline - Proposed | Bureau of Land Management | State
Road - Existing | Pipeline - Existing | Indian Reservation | Private

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

Well Pad - NBU 1021-1O

NBU 1021-1O3AS, NBU 1021-12B3DS, NBU 1021-12A2BS & NBU 1021-12B4BS
Topo D
Located In Section 1, T10S, R21E
S.L.B.&M., Uintah County, Utah

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No: 12	12 of 13
Drawn: JELo	Date: 30 June 2009		
Revised: JELo	Date: 12 Feb 2010		

RECEIVED April 08, 2010

API Well No: 43047508570000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: ML 23612

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 1021-12B4BS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047508570000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 **PHONE NUMBER:** 720 929-6007 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0336 FSL 2422 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSE Section: 1 Township: 10.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
✓ SPUD REPORT Date of Spud: 5/10/2010	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

MIRU PETE MARTIN BUCKET RIG. DRILLED 20" CONDUCTOR HOLE TO 40'.
RAN 14" 36.7# SCHEDULE 10 CONDUCTOR PIPE. CMT W/28 SX READY MIX.
SPUD WELL LOCATION ON 5-10-2010 AT 16:00 HRS.

Accepted by the Utah Division of Oil, Gas and Mining

FOR RECORD ONLY

May 12, 2010

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Andy Lytle	720 929-6100	Regulatory Analyst
SIGNATURE N/A		**DATE** 5/11/2010

API Well No: 43047508570000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: ML 23612

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 1021-12B4BS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047508570000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6007 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0336 FSL 2422 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSE Section: 1 Township: 10.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 3/25/2010	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	✓ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	✓ OTHER	OTHER: Pipeline re-route

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests to re-route the proposed pipeline for this well in order to remain on state land. Please see the attached revised survey plats and SUPO for additional details. All other information remains the same. Please contact the undersigned with any questions and/or comments. Thank you.

Accepted by the Utah Division of Oil, Gas and Mining

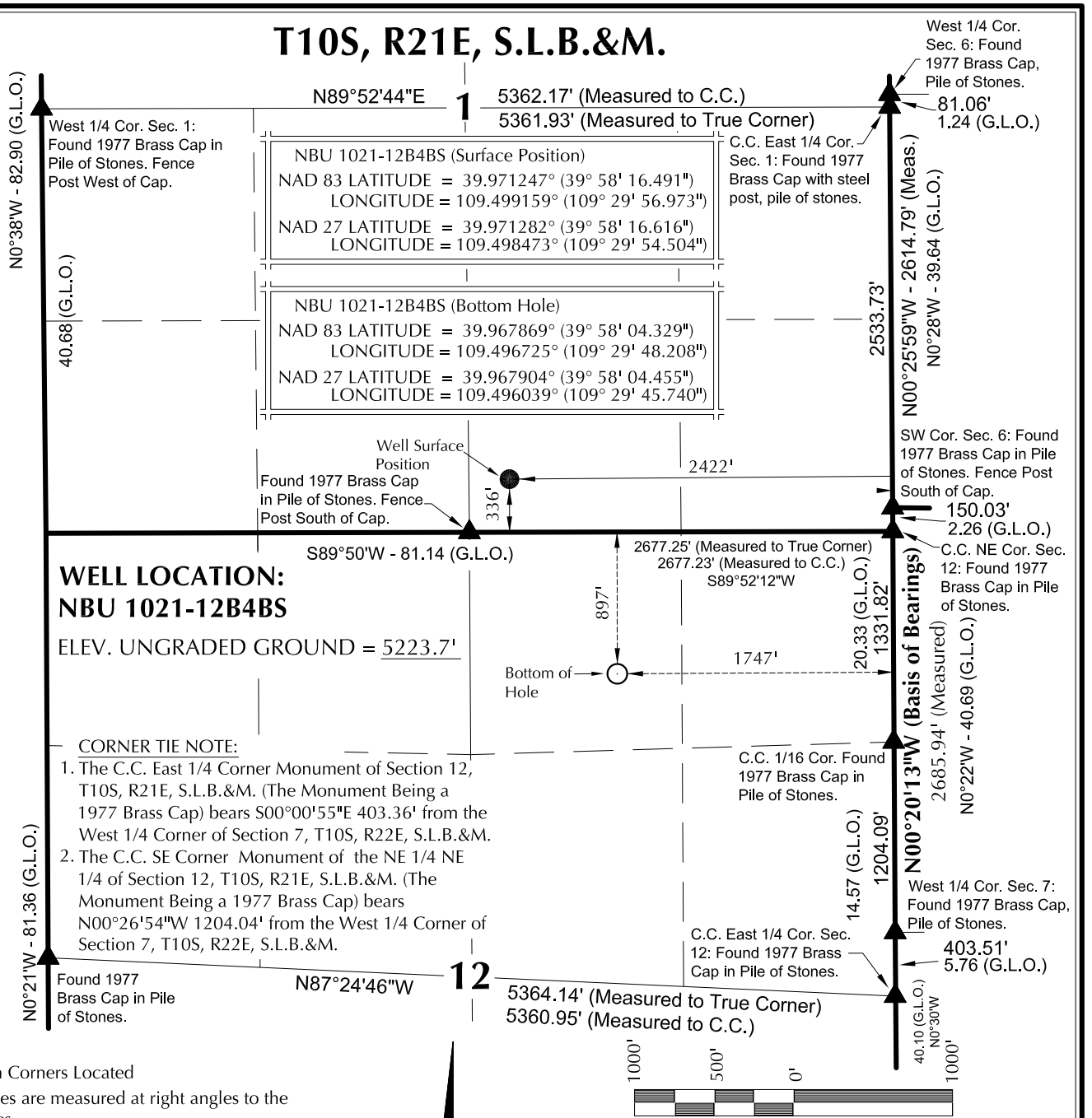
FOR RECORD ONLY

March 23, 2010

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Danielle Piernot	720 929-6156	Regulatory Analyst
SIGNATURE N/A		**DATE** 3/22/2010

RECEIVED March 22, 2010

T10S, R21E, S.L.B.&M.



SCALE

NOTES:

▲ = Section Corners Located

1. Well footages are measured at right angles to the Section Lines.
2. G.L.O. distances are shown in feet or chains. 1 chain = 66 feet.
3. The Bottom of hole bears S28°59'15"E 1407.51' from the Surface Position.
4. Bearings are based on Global Positioning Satellite observations.
5. Basis of elevation is Tri-Sta "Two Water" located in the NW ¼ of Section 1, T10S, R21E, S.L.B.&M. The elevation of this Tri-Sta is shown on the Big Pack Mtn NE 7.5 Min. Quadrangle as being 5238'.

SURVEYOR'S CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

PROFESSIONAL LAND SURVEYOR No.6028691 JOHN R. SLAUGH STATE OF UTAH

REGISTERED LAND SURVEYOR
REGISTRATION No. 6028691
STATE OF UTAH

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 1021-1O

NBU 1021-12B4BS
WELL PLAT
897' FNL, 1747' FEL (Bottom Hole)
NW ¼ NE ¼ OF SECTION 12, T10S, R21E, S.L.B.&M., UINTAH COUNTY, UTAH.

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 06-24-09	SURVEYED BY: D.J.S.	SHEET NO: 4
DATE DRAWN: 06-25-09	DRAWN BY: M.W.W.	4 OF 13
SCALE: 1" = 1000'	Date Last Revised: 2-12-10 M.W.W.	

RECEIVED March 22, 2010

LATITUDE & LONGITUDE Surface Position - (NAD 83)		
WELL	N. LATITUDE	W. LONGITUDE
NBU 1021-1O3AS	39°58'17.054" 39.971404°	109°29'57.208" 109.499224°
NBU 1021-12B3DS	39°58'16.866" 39.971352°	109°29'57.131" 109.499203°
NBU 1021-12A2BS	39°58'16.678" 39.971299°	109°29'57.051" 109.499181°
NBU 1021-12B4BS	39°58'16.491" 39.971247°	109°29'56.973" 109.499159°
NBU 1021-1O Existing Well	39°58'15.586" 39.970996°	109°29'59.497" 109.499860°

LATITUDE & LONGITUDE Bottom Hole - (NAD 83)		
WELL	N. LATITUDE	W. LONGITUDE
NBU 1021-1O3AS	39°58'16.820" 39.971339°	109°29'52.039" 109.497789°
NBU 1021-12B3DS	39°58'01.718" 39.967144°	109°29'54.646" 109.498513°
NBU 1021-12A2BS	39°58'09.870" 39.969408°	109°29'39.560" 109.494322°
NBU 1021-12B4BS	39°58'04.329" 39.967869°	109°29'48.208" 109.496725°

RELATIVE COORDINATES From Surface Position to Bottom Hole		
WELL	NORTH	EAST
NBU 1021-1O3AS	-24'	403'
NBU 1021-12B3DS	-1,533'	193'
NBU 1021-12A2BS	-690'	1,362'
NBU 1021-12B4BS	-1,231'	682'

BASIS OF BEARINGS IS THE WEST LINE OF THE NW 1/4 OF SECTION 7, T10S, R22E, S.L.B.&M. WHICH IS TAKEN FROM GLOBAL POSITIONING SATELLITE OBSERVATIONS TO BEAR N00°20'13"W.

N17°44'08"W
Az=342.26444°

NBU 1021-1O3AS
Az. to Exist. W.H.=230.21083° 232.1'

NBU 1021-12B3DS
Az. to Exist. W.H.=234.90111° 225.3'

NBU 1021-12A2BS
Az. to Exist. W.H.=239.89694° 220.2'

NBU 1021-12B4BS
Az. to Exist. W.H.=245.03778° 216.8'

20'
20'
20'

Az=93.39361°
S86°36'23"E - 403.22'
(To Bottom Hole)

Az=116.85667°
S63°08'36"E - 1526.49'
(To Bottom Hole)

Az=172.82944°
S07°10'14"E - 1545.43'
(To Bottom Hole)

Az=151.01250°
S28°59'15"E - 1407.51'
(To Bottom Hole)

SURFACE POSITION FOOTAGES:

NBU 1021-1O3AS
393' FSL & 2439' FEL

NBU 1021-12B3DS
374' FSL & 2433' FEL

NBU 1021-12A2BS
355' FSL & 2427' FEL

NBU 1021-12B4BS
336' FSL & 2422' FEL

NBU 1021-1O EXISTING WELL
245' FSL & 2619' FEL

BOTTOM HOLE FOOTAGES

NBU 1021-1O3AS
368' FSL & 2037' FEL

NBU 1021-12B3DS
1160' FNL & 2250' FEL

NBU 1021-12A2BS
338' FNL & 1070' FEL

NBU 1021-12B4BS
897' FNL & 1747' FEL

◉ **EXISTING WELL: NBU 1021-1O**

LATITUDE & LONGITUDE Surface Position - (NAD 27)		
WELL	N. LATITUDE	W. LONGITUDE
NBU 1021-1O3AS	39°58'17.179" 39.971439°	109°29'54.739" 109.498538°
NBU 1021-12B3DS	39°58'16.992" 39.971387°	109°29'54.662" 109.498517°
NBU 1021-12A2BS	39°58'16.803" 39.971334°	109°29'54.582" 109.498495°
NBU 1021-12B4BS	39°58'16.616" 39.971282°	109°29'54.504" 109.498473°
NBU 1021-1O Existing Well	39°58'15.711" 39.971031°	109°29'57.027" 109.499174°

LATITUDE & LONGITUDE Bottom Hole - (NAD 27)		
WELL	N. LATITUDE	W. LONGITUDE
NBU 1021-1O3AS	39°58'16.945" 39.971374°	109°29'49.570" 109.497103°
NBU 1021-12B3DS	39°58'01.843" 39.967179°	109°29'52.177" 109.497827°
NBU 1021-12A2BS	39°58'09.995" 39.969443°	109°29'37.092" 109.493637°
NBU 1021-12B4BS	39°58'04.455" 39.967904°	109°29'45.740" 109.496039°

N

60' 30' 0' 60'

SCALE

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 1021-1O

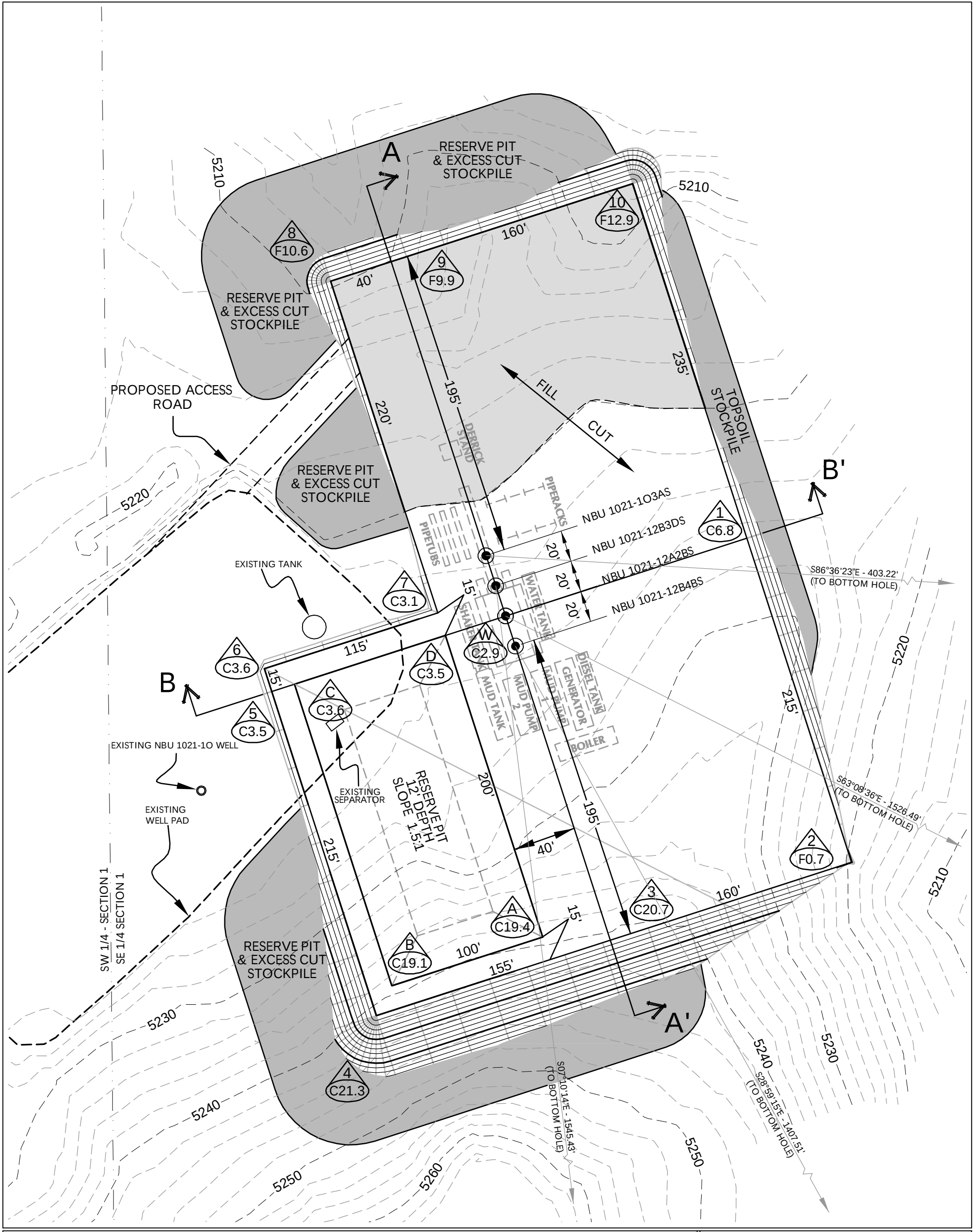
WELL PAD INTERFERENCE PLAT
NBU 1021-1O3AS, NBU 1021-12B3DS, NBU 1021-12A2BS & NBU 1021-12B4BS
LOCATED IN SECTION 1, T10S, R21E, S.L.B.&M., UINTAH COUNTY, UTAH.

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 06-24-09	SURVEYED BY: D.J.S.	SHEET NO: 5
DATE DRAWN: 06-26-09	DRAWN BY: M.W.W.	5 OF 13
SCALE: 1" = 60'	Date Last Revised: 02-12-10 M.W.W.	

RECEIVED March 22, 2010



WELL PAD - NBU 1021-1O DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 5222.9'
FINISHED GRADE ELEVATION = 5220.0'
CUT SLOPES = 1.5:1
FILL SLOPES = 1.5:1
TOTAL WELL PAD AREA = 3.16 ACRES
TOTAL DAMAGE AREA = 5.72 ACRES
SHRINKAGE FACTOR = 1.10
SWELL FACTOR = 1.00

WELL PAD QUANTITIES

TOTAL CUT FOR WELL PAD = 27,799 C.Y.
TOTAL FILL FOR WELL PAD = 5,780 C.Y.
TOPSOIL @ 6" DEPTH = 2,441 C.Y.
EXCESS MATERIAL = 22,019 C.Y.

RESERVE PIT QUANTITIES

TOTAL CUT FOR RESERVE PIT
+/- 6,680 CY
RESERVE PIT CAPACITY (2' OF FREEBOARD)
+/- 25,330 BARRELS

WELL PAD LEGEND

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PROPOSED BOTTOM HOLE LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)

HORIZONTAL 0 30 60 1" = 60'
2' CONTOURS

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 1021-1O

WELL PAD - LOCATION LAYOUT
NBU 1021-1O3AS, NBU 1021-12B3DS
NBU 1021-12A2BS & NBU 1021-12B4BS
LOCATED IN SECTION 1, T10S, R21E
S.L.B.&M., UINTAH COUNTY, UTAH

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Sheridan, WY 82801
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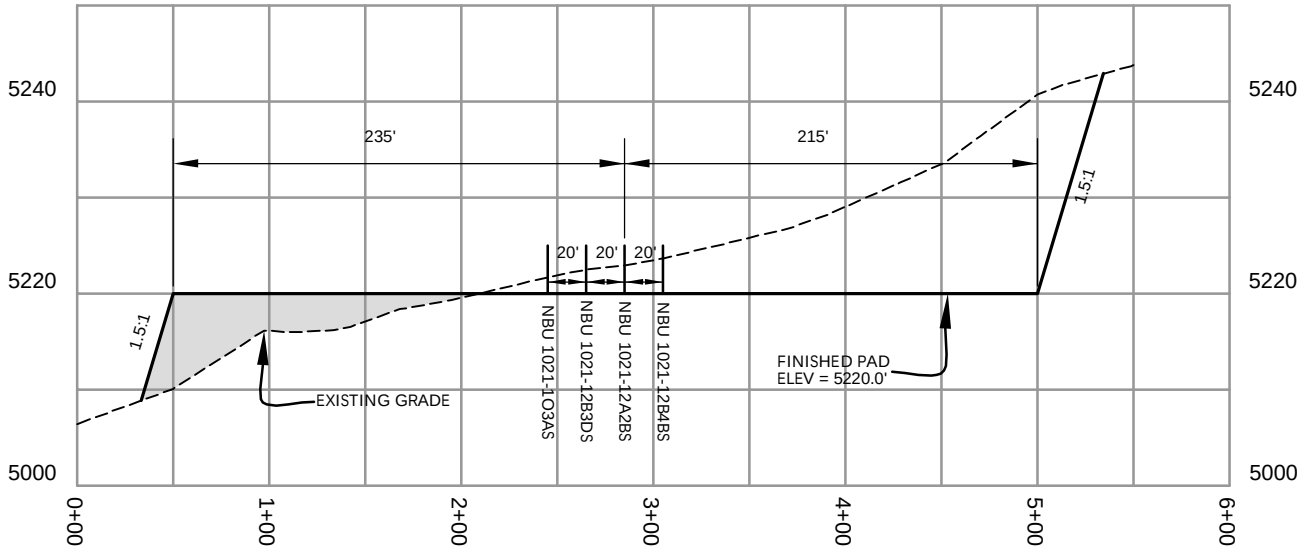
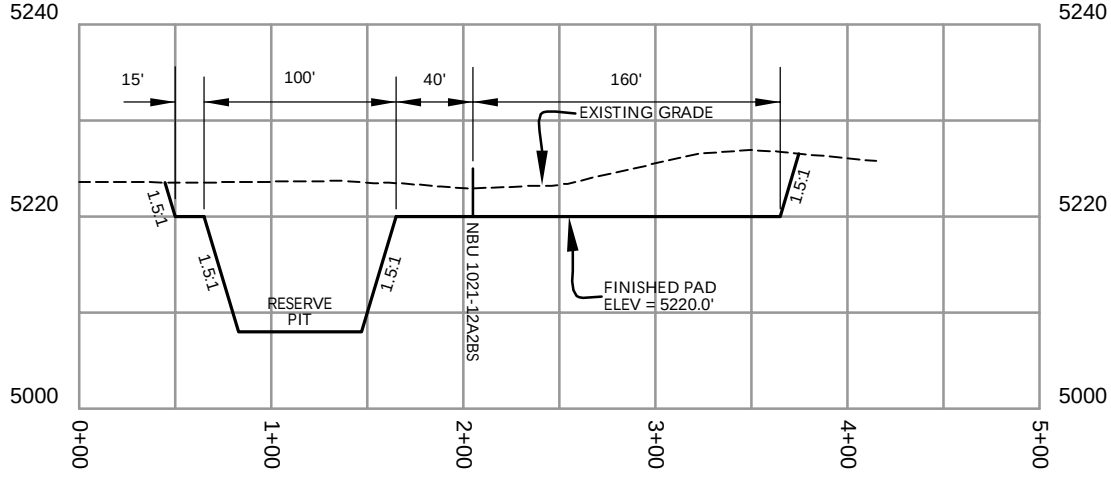
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

Scale: 1"=60'	Date: 6/30/09	SHEET NO: 6
REVISED:	SEA 2/12/10	6 OF 13



CROSS SECTION A-A'



CROSS SECTION B-B'

NOTE: CROSS SECTION B-B' DEPICTS MAXIMUM RESERVE PIT DEPTH.

HORIZONTAL 0 50 100 1" = 100'

VERTICAL 0 10 20 1" = 20'

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 1021-1O

WELL PAD - CROSS SECTIONS
NBU 1021-1O3AS, NBU 1021-12B3DS
NBU 1021-12A2BS & NBU 1021-12B4BS
LOCATED IN SECTION 1, T10S, R21E
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078
(435) 789-1365

Scale: 1"=100' | Date: 6/30/09 | SHEET NO: 7 of 13
REVISED: SEA 2/12/10

RECEIVED March 22, 2010

K:\ANADARKO\2009_11_NBU_Directional_UELS_Edits\DWGS\NBU 1021-01O.dwg, 2/12/2010 5:46:56 PM, PDF-XChange for AcroPlot Pro

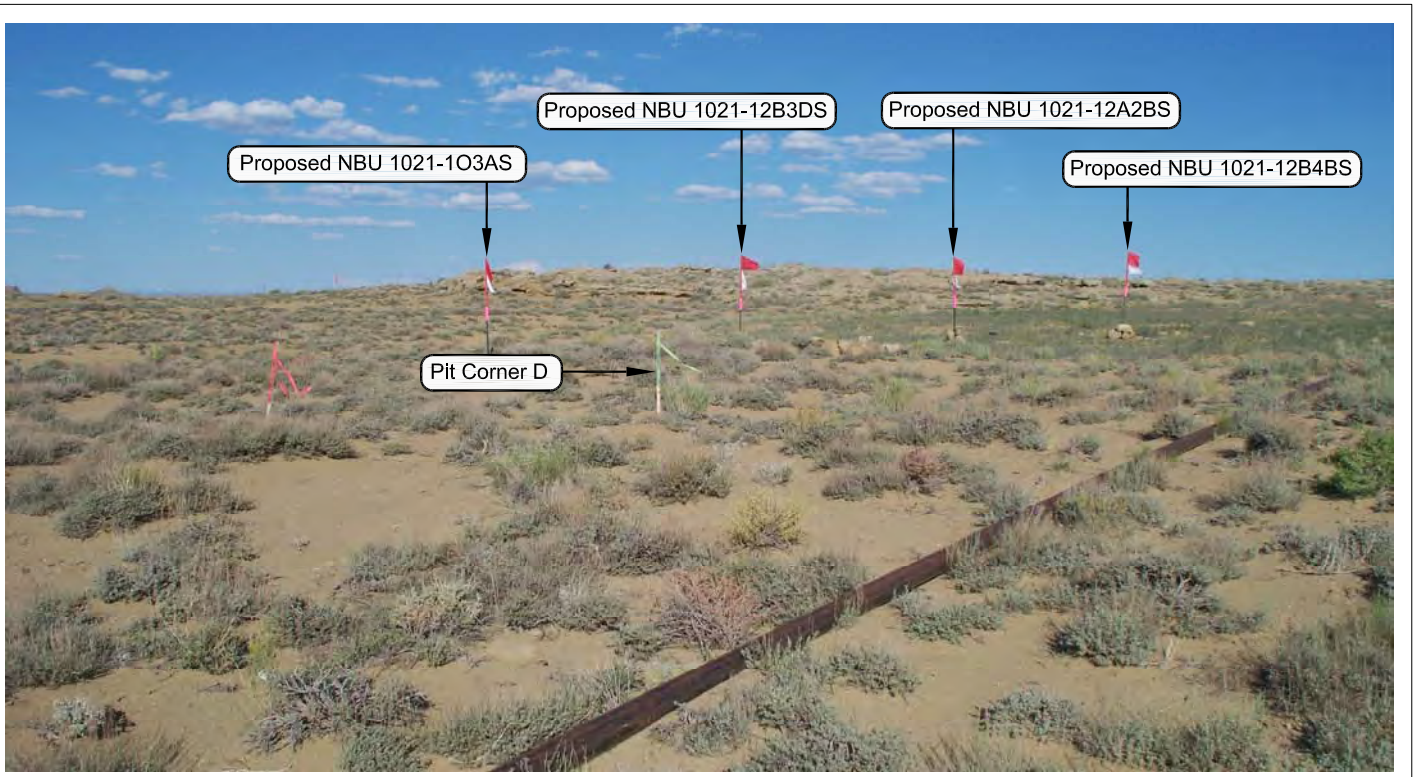


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE CAMERA ANGLE: SOUTHEASTERLY

PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD CAMERA ANGLE: NORTHEASTERLY

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

Well Pad - NBU 1021-1O

NBU 1021-1O3AS, NBU 1021-12B3DS, NBU 1021-12A2BS & NBU 1021-12B4BS LOCATION PHOTOS LOCATED IN SECTION 1, T10S, R21E, S.L.B.&M., UINTAH COUNTY, UTAH.

609 CONSULTING, LLC
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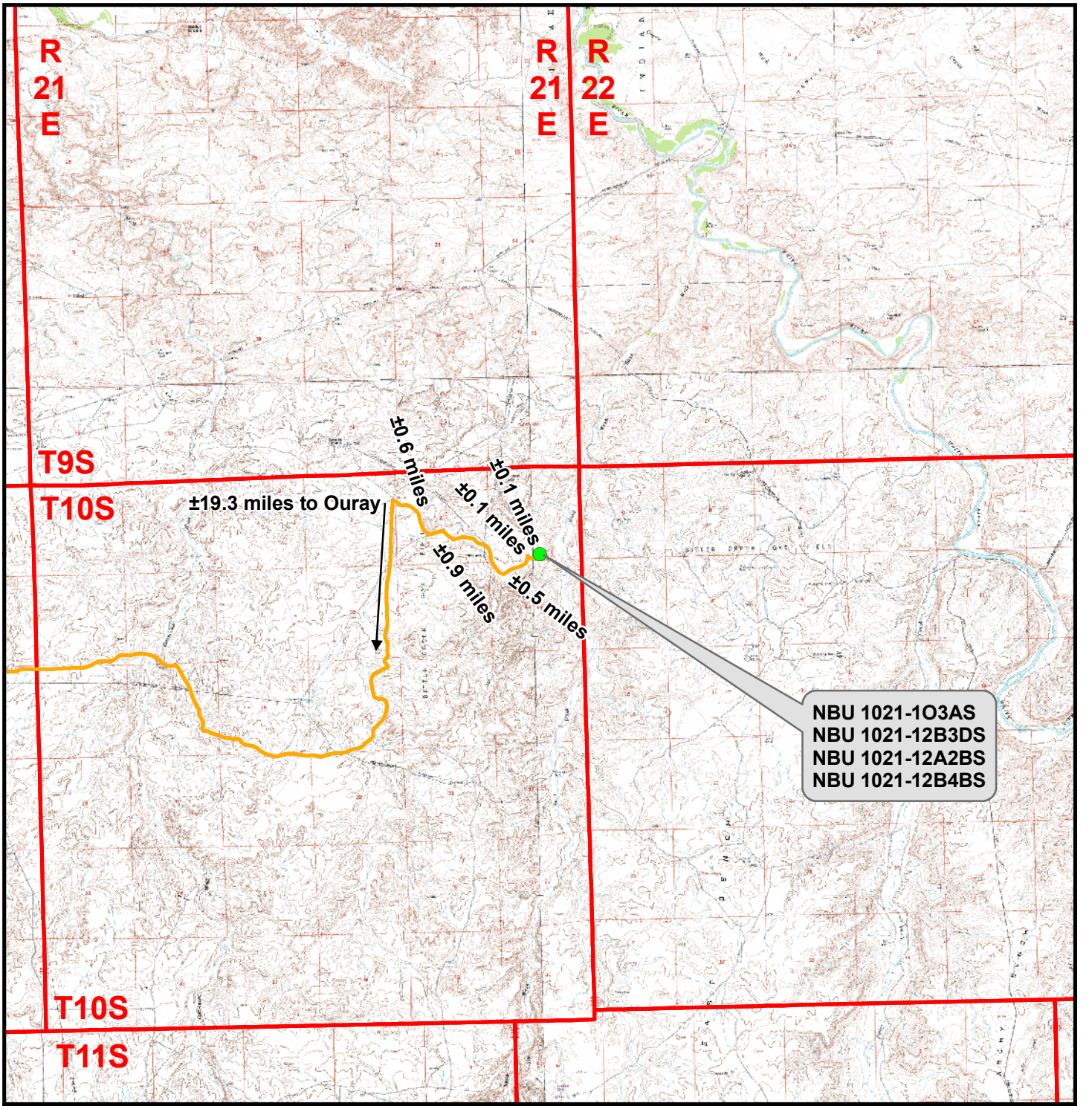
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE PHOTOS TAKEN: 06-24-09	PHOTOS TAKEN BY: D.J.S.	SHEET NO: 8
DATE DRAWN: 06-29-09	DRAWN BY: M.W.W.	
Date Last Revised: 2-12-10 M.W.W.		8 OF 13



Legend

- Proposed Well Location
- Access Route - Proposed

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

Well Pad - NBU 1021-1O

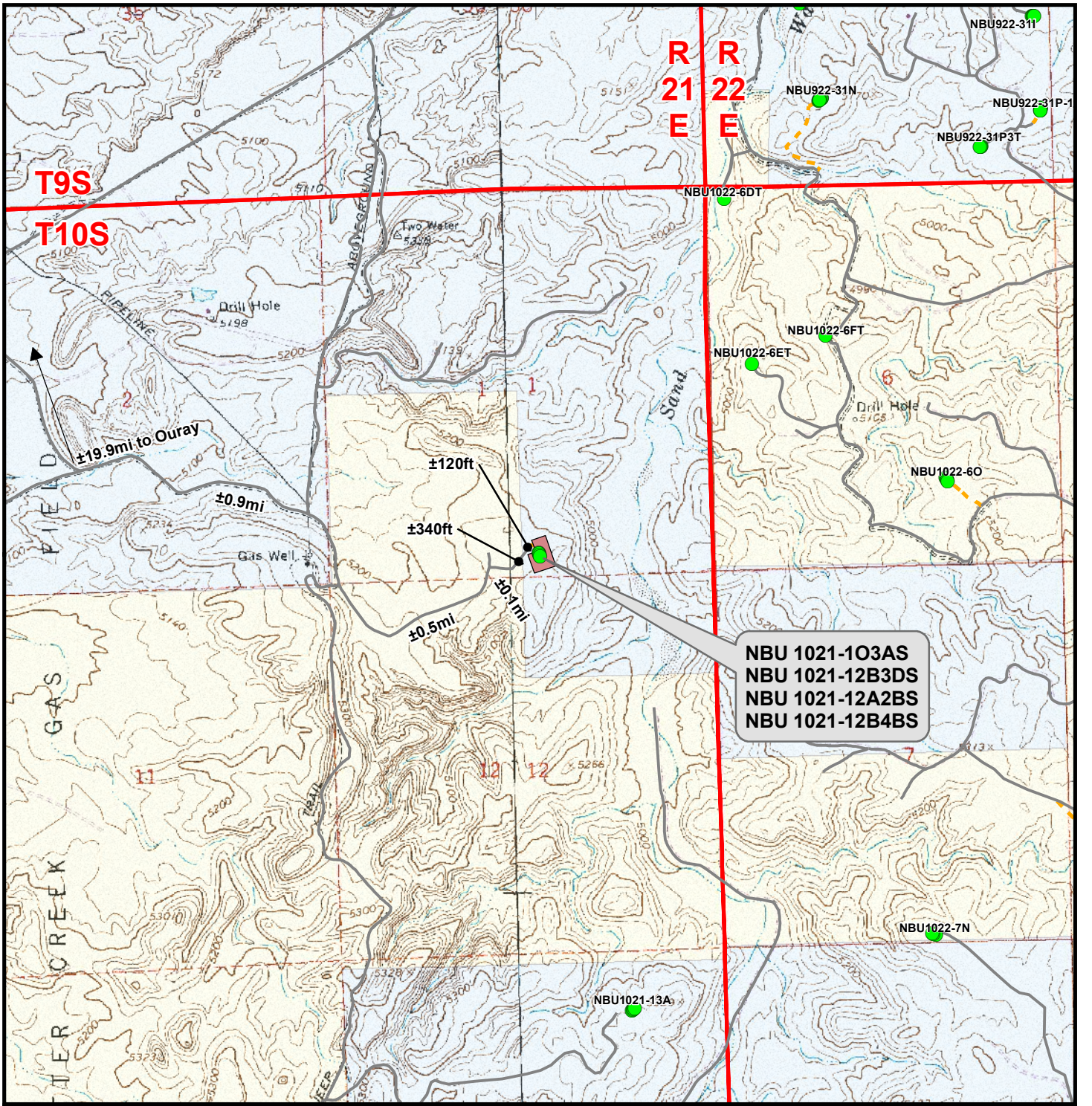
NBU 1021-1O3AS, NBU 1021-12B3DS, NBU 1021-12A2BS & NBU 1021-12B4BS
Topo A
Located In Section 1, T10S, R21E
S.L.B.&M., Uintah County, Utah

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1:100,000	NAD83 USP Central	Sheet No: 9	9 of 13
Drawn: JELo	Date: 30 June 2009		
Revised: JELo	Date: 12 Feb 2010		

RECEIVED March 22, 2010



Legend

Total Proposed Road Length: ±120ft

Well - Proposed | Well Pad | Road - Proposed | Bureau of Land Management | State
Road - Existing | Indian Reservation | Private

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

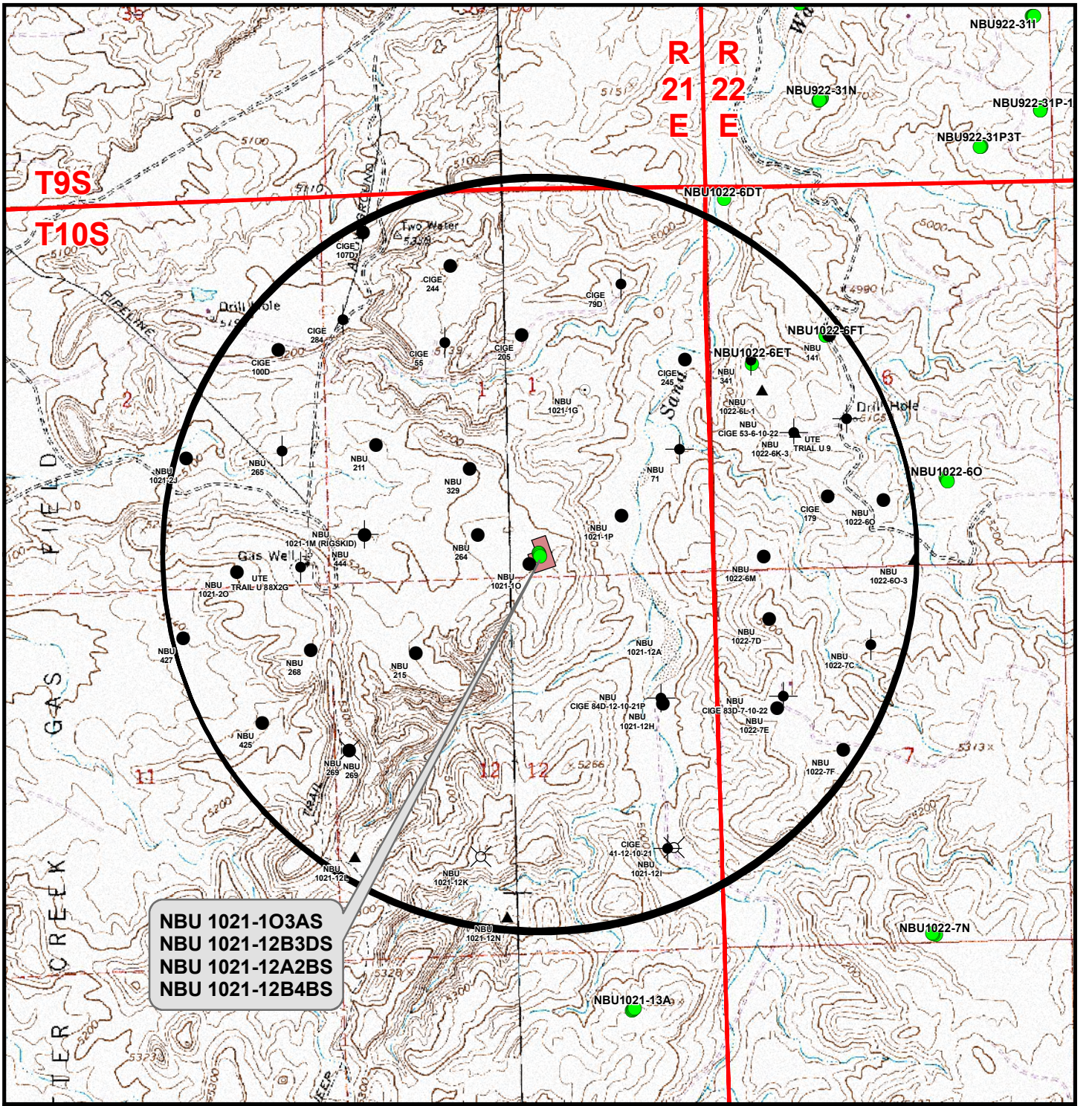
Well Pad - NBU 1021-1O

NBU 1021-1O3AS, NBU 1021-12B3DS, NBU 1021-12A2BS & NBU 1021-12B4BS
Topo B
Located In Section 1, T10S, R21E
S.L.B.&M., Uintah County, Utah

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No: 10	10 of 13
Drawn: JELo	Date: 30 June 2009		
Revised: JELo	Date: 12 Feb 2010		



Legend

Well locations derived from State of Utah, Dept. of Natural Resources, Division of Oil, Gas and Mining

- Well - Proposed
- Well - 1 Mile Radius
- Well Pad
- Producing
- Approved permit (APD); not yet spudded
- Spudded (Drilling commenced: Not yet comple
- Location Abandoned
- Temporarily-Abandoned
- Plugged and Abandoned
- Shut-In

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

Well Pad - NBU 1021-1O

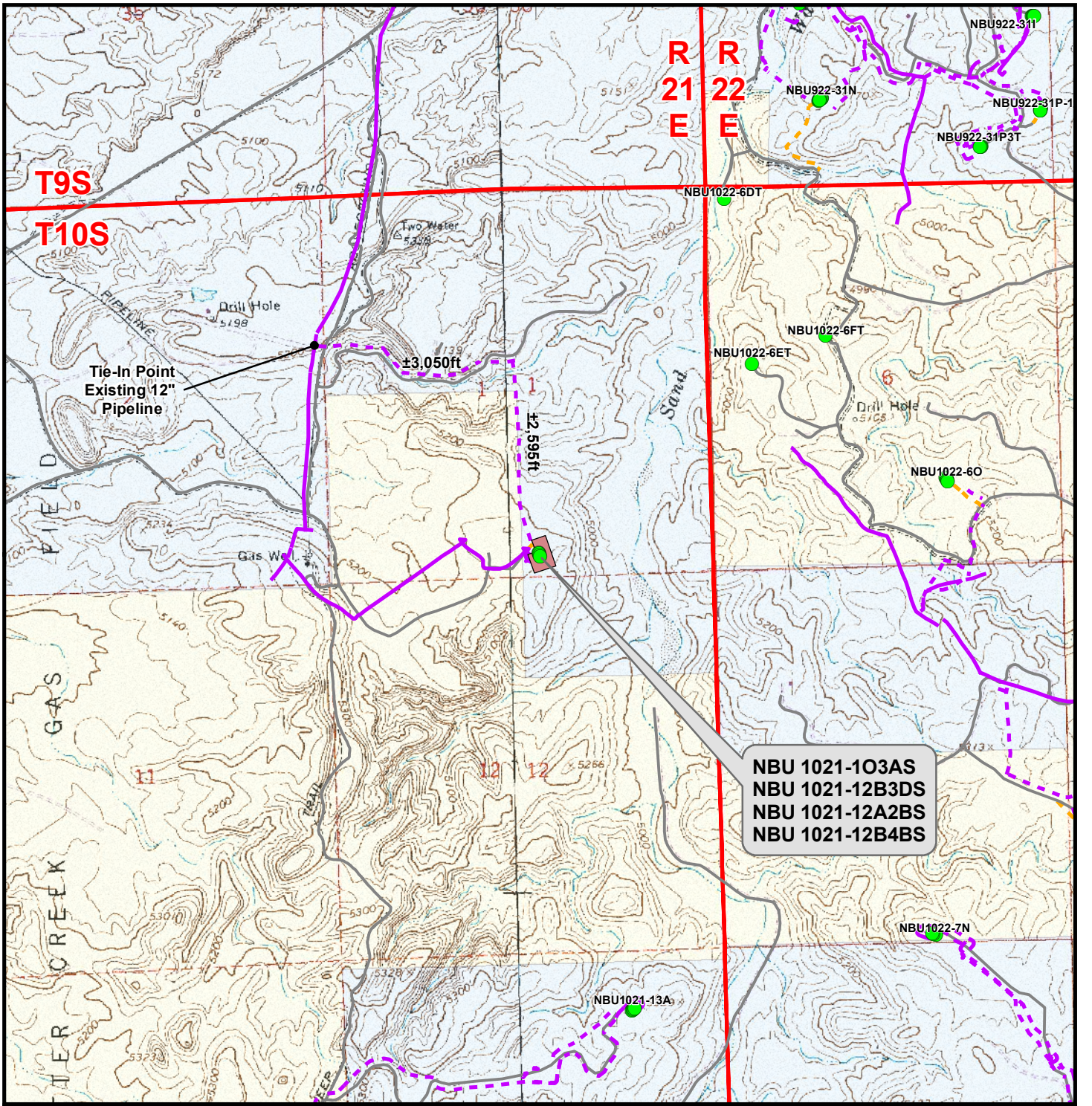
NBU 1021-1O3AS, NBU 1021-12B3DS, NBU 1021-12A2BS & NBU 1021-12B4BS
Topo C
Located In Section 1, T10S, R21E
S.L.B.&M., Uintah County, Utah

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No: 11	11 of 13
Drawn: JELo	Date: 30 June 2009		
Revised: JELo	Date: 12 Feb 2010		

RECEIVED March 22, 2010



Legend

Well - Proposed | Well Pad | Road - Proposed | Pipeline - Proposed | Bureau of Land Management | State
Road - Existing | Pipeline - Existing | Indian Reservation | Private

Proposed Pipeline Length From Tie-In Point To Edge Of Pad: ±5,645ft
Proposed Pipeline Length Around Pad: ±660ft

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

Well Pad - NBU 1021-1O

NBU 1021-1O3AS, NBU 1021-12B3DS, NBU 1021-12A2BS & NBU 1021-12B4BS
Topo D
Located In Section 1, T10S, R21E
S.L.B.&M., Uintah County, Utah

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No: 12	12 of 13
Drawn: JELo	Date: 30 June 2009		
Revised: JELo	Date: 12 Feb 2010		

Kerr-McGee Oil & Gas Onshore, LP
WELL PAD - NBU 1021-1O
WELLS – NBU 1021-12B3DS, NBU 1021-12B4BS , NBU 1021-12A2BS & NBU 1021-1O3AS
Section 1, T10S, R21E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 13.9 MILES TO THE JUNCTION OF STATE HIGHWAY 88. EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION ALONG STATE HIGHWAY 88 APPROXIMATELY 16.8 MILES TO OURAY, UTAH. FROM OURAY, PROCEED IN A SOUTHERLY DIRECTION ALONG THE SEEP RIDGE ROAD (COUNTY B ROAD 2810) APPROXIMATELY 11.2 MILES TO THE INTERSECTION OF THE GLEN BENCH ROAD (COUNTY B ROAD 3260). EXIT LEFT AND PROCEED IN AN EASTERLY, THEN SOUTHEASTERLY, THEN NORTHEASTERLY DIRECTION ALONG THE GLEN BENCH ROAD APPROXIMATELY 8.1 MILES TO A CLASS D COUNTY ROAD TO THE SOUTHEAST. EXIT RIGHT AND PROCEED IN A SOUTHEASTERLY DIRECTION 0.6 MILES TO THE WEST SAND WASH ROAD (COUNTY B ROAD 4110). EXIT LEFT AND PROCEED IN AN EASTERLY, THEN SOUTHEASTERLY DIRECTION ALONG THE WEST SAND WASH ROAD APPROXIMATELY 0.9 MILES TO A SERVICE ROAD TO THE SOUTHEAST. EXIT LEFT AND PROCEED IN A SOUTHEASTERLY, THEN NORTHEASTERLY DIRECTION ALONG THE SERVICE ROAD APPROXIMATELY 0.5 MILES TO THE EXISTING ACCESS ROAD FOR THE NBU 1021-1O WELL PAD. EXIT RIGHT AND PROCEED IN AN EASTERLY DIRECTION ALONG THE ACCESS ROAD APPROXIMATELY 0.1 MILES TO THE NBU 1021-1O WELL PAD. PROCEED NORTHEASTERLY APPROXIMATELY 340 FEET CROSSING THE NBU 1021-1O WELL SITE AND TO THE PROPOSED ACCESS ROAD. FOLLOW ROAD FLAGS IN A NORTHEASTERLY DIRECTION APPROXIMATELY 120 FEET TO THE PROPOSED WELL PAD.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 52.2 MILES IN A SOUTHERLY DIRECTION.

RECEIVED March 22, 2010

NBU 1021-1O3AS
Surface: 393' FSL 2,439' FEL (SW/4SE/4) Section 1
BHL: 368' FSL 2,037' FEL (SW/4SE/4) Section 1

NBU 1021-12A2BS
Surface: 355' FSL 2,427' FEL (SW/4SE/4) Section 1
BHL: 338' FNL 1,070' FEL (NE/4NE/4) Section 12

NBU 1021-12B3DS
Surface: 374' FSL 2,433' FEL (SW/4SE/4) Section 1
BHL: 1,160' FNL 2,250' FEL (NW/4NE/4) Section 12

NBU 1021-12B4BS
Surface: 336' FSL 2,422' FEL (SW/4SE/4) Section 1
BHL: 897' FNL 1,747' FEL (NW/4NE/4) Section 12

Pad: NBU 1021-1O
T10S R21E
Mineral Lease: ML 23612

Uintah, Utah
Operator: Kerr-McGee Oil & Gas Onshore LP

ONSHORE ORDER NO. 1

MULTI-POINT SURFACE USE & OPERATIONS PLAN SUBMITTED WITH SITE-SPECIFIC INFORMATION

An on-site meeting was held on January 12, 2010. Present were:

- Floyd Bartlett – UDOGM
- Jim Davis - SITLA
- Alex Hansen, Ben Williams – Division of Wildlife Resources (DWR)
- John Slaugh, Mitch Batty – 609 Consulting, LLC
- Clay Einerson, Tony Kazeck, Sheila Wopsock, Raamey Hoopes, Dave Daniels – Kerr- McGee Oil & Gas Onshore LP. (Kerr-McGee)

Directional Drilling:
In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, this well will be directionally drilled in order to access portions of our lease which are otherwise inaccessible due to topography.

A. Existing Roads:

A) Refer to Topo Map A for directions to the location.
B) Refer to Topo Maps A and B for location of access roads within a 2-mile radius.

RECEIVED March 22, 2010

B. **Planned Access Roads:**
See MDP for additional details on road construction.
Approximately ±120' (±0.02 miles) of new access road is proposed. Please refer to the attached Topo Map B. No pipelines will be crossed with the new construction.

Existence of pipelines; maximum grade; turnouts; major cut and fills, culverts, or bridges; gates, cattle guards, fence cuts, or modifications to existing facilities were determined at the on-site and are typically shown on the attached Exhibits and Topo maps.

C. **Location of Existing Wells Within a 1-Mile Radius:**
Please refer to Topo Map C.

D. **Location of Existing and Proposed Facilities:**
See MDP for additional details on Existing and Proposed Facilities.

This pad will expand the existing pad for the NBU 1021-1O well, which is a producing well according to Utah Division of Oil, Gas and Mining (UDOGM) records.

The following guidelines will apply if the well is productive.
Approximately ±5,645' (±1.07 miles) of new 6" buried pipeline is proposed from the tie in point to the edge of the pad. Another approximately ±660' (±0.13 miles) of proposed 6" buried pipeline is proposed around the pad**.** Please refer to Topo D for the existing pipeline. Pipeline segments will be welded or zaplocked together on disturbed areas in or near the location, whenever possible, and dragged into place.

E. **Location and Type of Water Supply:**
See MDP for additional details on Location and Type of Water Supply.

Water for drilling purposes will be obtained from the following sources:

49-2243	Target Trucking Inc.	Green River- Various points
49-2300	R.N. Industries	White River- Various points
49-2298	RNI Trucking	White River- Various points
49-2231	Nile Chapman	Green River- Various points
49-2299	R.N. Industries	Green River- Various points
49-2306	R.N. Industries	White River- Various points

Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

F. **Source of Construction Materials:**
See MDP for additional details on Source of Construction Materials.

G. **Methods of Handling Waste Materials:**
See MDP for additional details on Methods of Handling Waste Materials.

RECEIVED March 22, 2010

Any produced water from the proposed well will be contained in a water tank and will then be hauled by truck to one of the pre-approved disposal sites:

RNI in Sec. 5 T9S R22E
NBU #159 in Sec. 35 T9S R21E
Ace Oilfield in Sec. 2 T6S R20E
MC&MC in Sec. 12 T6S R19E
Pipeline Facility in Sec. 36 T9S R20E
Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E
Bonanza Evaporation Pond in Sec. 2 T10S R23E

H. **Ancillary Facilities:**
See MDP for additional details on Ancillary Facilities.

None are anticipated.

I. **Well Site Layout:** (See Location Layout Diagram)
See MDP for additional details on Well Site Layout.

All pits will be fenced according to the following minimum standards:

- Net wire (39-inch) will be used with at least one strand of barbed wire on top of the net wire. Barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence.
- The net wire shall be no more than two inches above the ground. The barbed wire shall be three inches over the net wire. Total height of the fence shall be at least 42 inches.
- Corner posts shall be cemented and/or braced in such a manner to keep the fence tight at all times.
- Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.
- All wire shall be stretched, by using a stretching device, before it is attached to corner posts.

J. **Plans for Reclamation of the Surface:**
See MDP for additional details on Plans for Reclamation of the Surface.

K. **Surface/Mineral Ownership:**
SITLA
675 East 500 South, Suite 500
Salt Lake City, UT 84102

L. **Other Information:**
See MDP for additional details on Other Information.

RECEIVED March 22, 2010

M. Lessee's or Operators' Representative & Certification:

Danielle Piernot
Regulatory Analyst
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6156

Tommy Thompson
General Manager, Drilling
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by State Surety Bond 22013542.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Danielle Piernot
Danielle Piernot

December 18, 2009
Date

API Well No: 43047508570000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: ML 23612

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 1021-12B4BS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047508570000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6007 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0336 FSL 2422 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSE Section: 1 Township: 10.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 4/12/2010	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	✓ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

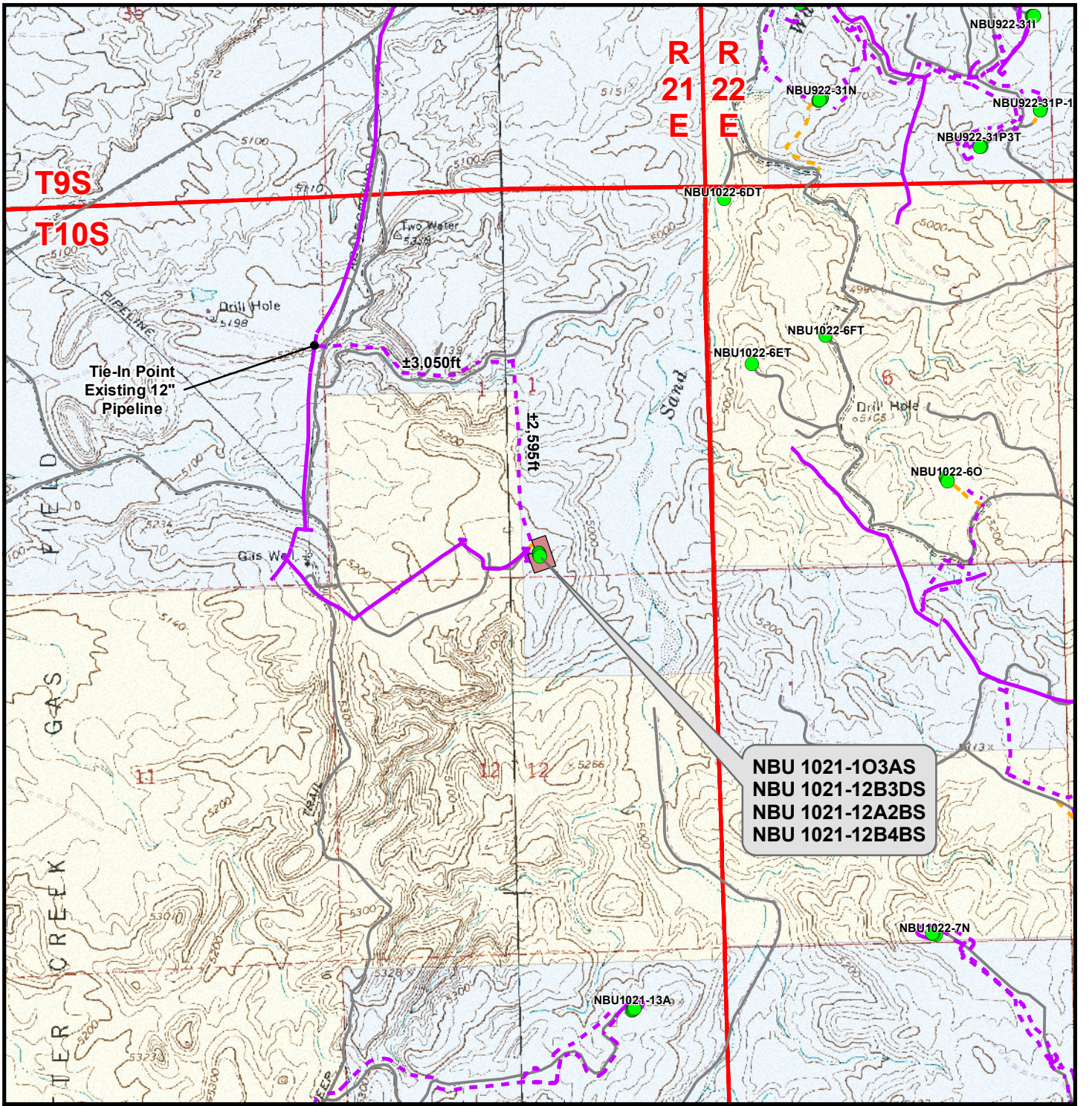
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee) respectfully requests to change the size of the pipeline for this location. The ±2,595' potion of pipeline that is traveling northerly from the well pad will be a buried 6" pipeline and the ±3,050' portion of pipeline traveling westerly to the tie in point will be a buried 10" pipeline. The pipeline will follow the same route as detailed in the sundry notice accepted for record on March 23, 2010. Please see the attached pipeline plat for additional details. Please contact the undersigned with any questions and/or comments. Thank you.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
April 08, 2010

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Danielle Piernot	720 929-6156	Regulatory Analyst
SIGNATURE N/A		**DATE** 4/8/2010

RECEIVED April 08, 2010



Legend

Proposed Pipeline Length From Tie-In Point To Edge Of Pad: ±5,645ft
Proposed Pipeline Length Around Pad: ±660ft

Well - Proposed | Well Pad | Road - Proposed | Pipeline - Proposed | Bureau of Land Management | State
Road - Existing | Pipeline - Existing | Indian Reservation | Private

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

Well Pad - NBU 1021-1O

NBU 1021-1O3AS, NBU 1021-12B3DS, NBU 1021-12A2BS & NBU 1021-12B4BS
Topo D
Located In Section 1, T10S, R21E
S.L.B.&M., Uintah County, Utah

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No: 12	12 of 13
Drawn: JELo	Date: 30 June 2009		
Revised: JELo	Date: 12 Feb 2010		

RECEIVED April 08, 2010

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 6

ENTITY ACTION FORM

Operator: KERR McGEE OIL & GAS ONSHORE LP
Operator Account Number: N 2995
Address: P.O. Box 173779
city DENVER
state CO zip 80217
Phone Number: (720) 929-6100

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304750856	NBU 1021-12B3DS		SWSE	1	10S	21E	UINTAH
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	2900	5/10/2010			5/18/10	

Comments: MIRU PETE MARTIN BUCKET RIG. WSMVD
SPUD WELL LOCATION ON 5/10/2010 AT 12:00 HRS. BHL = Sec 12 NWNE

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304750855	NBU 1021-12A2BS		SWSE	1	10S	21E	UINTA
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	2900	5/10/2010			5/18/10	

Comments: MIRU PETE MARTIN BUCKET RIG. WSMVD
SPUD WELL LOCATION ON 5/10/2010 AT 14:00 HRS. BHL = Sec 12 NENE

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304750857	NBU 1021-12B4BS		SWSE	1	10S	21E	UINTAH
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	2900	5/10/2010			5/18/10	

Comments: MIRU PETE MARTIN BUCKET RIG. WSMVD
SPUD WELL LOCATION ON 5/10/2010 AT 16:00 HRS. BHL = Sec 12 NWNE

ACTION CODES:
- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (Explain in 'comments' section)

ANDY LYTLE
Name (Please Print)
Signature
REGULATORY ANALYST
Title
5/11/2010
Date

RECEIVED
MAY 11 2010
DIV. OF OIL, GAS & MINING

(5/2000)

API Well No: 43047508570000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: ML 23612

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 1021-12B4BS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047508570000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6007 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0336 FSL 2422 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSE Section: 1 Township: 10.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
✓ DRILLING REPORT Report Date: 5/16/2010	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

MIRU CAPSTAR AIR RIG ON MAY 14, 2010. DRILLED 11" SURFACE HOLE TO 2255'. RAN 8 5/8" 28# J-55 SURFACE CSG. PUMP 120 BBLS FRESH WATER PUMP 20 BBLS GEL WATER. CEMENT W/ 225 SX CLASS G PREM LITE @ 15.8 PPG, 1.15 YD. DISPLACED W/ 136 BBLS WATER W/70 PSI LIFT @ 2.5 BBLS/MINUTE. BUMPED PLUG 500 PSI, FLOAT HELD. NO CIRC THROUGH OUT THE JOB. PUMP 100 SX CLASS G PREM LITE @ 15.8 PPG, 1.15 YD. TOP OUT 100 SX SAME CEMENT. NO CEMENT TO SURFACE. WILL TOP OUT AGAIN ON NEXT JOB. WORT.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
May 18, 2010

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Andy Lytle	720 929-6100	Regulatory Analyst
SIGNATURE N/A		**DATE** 5/18/2010

RECEIVED May 18, 2010

API Well No: 43047508570000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: ML 23612

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 1021-12B4BS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047508570000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6007 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0336 FSL 2422 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSE Section: 1 Township: 10.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
✓ DRILLING REPORT Report Date: 7/6/2010	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

FINISHED DRILLING FROM 2255' TO 9624' ON JULY 4, 2010. RAN 4 ½" 11.6# I-80 PRODUCTION CSG. PUMP 40 BBLS SPACER, LEAD CEMENT W/ 496 SX CLASS G @ 12.4 PPG, 2.03 YD. TAILED CEMENT W/ 975 SX CLASS G 50/50 POZ MIX @ 14.3 PPG, 1.31 YD. DISPLACED W/ 149 BBLS WATER. BUMPED PLUG, FLOATS HELD. RD CEMENTERS AND CLEANED PITS. RELEASED ENSIGN RIG #146 ON JULY 6, 2010 @ 09:00 HRS.

Accepted by the Utah Division of Oil, Gas and Mining

FOR RECORD ONLY

July 08, 2010

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Andy Lytle	720 929-6100	Regulatory Analyst
SIGNATURE N/A		**DATE** 7/7/2010

RECEIVED July 07, 2010

API Well No: 43047508570000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: ML 23612

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 1021-12B4BS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047508570000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6007 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0336 FSL 2422 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSE Section: 1 Township: 10.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
✓ DRILLING REPORT Report Date: 7/6/2010	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

FINISHED DRILLING FROM 2255' TO 9624' ON JULY 4, 2010. RAN 4 ½" 11.6# I-80 PRODUCTION CSG. PUMP 40 BBLS SPACER, LEAD CEMENT W/ 496 SX CLASS G PREM LITE @ 12.4 PPG, 2.03 YD. TAILED CEMENT W/ 975 SX CLASS G 50/50 POZ MIX @ 14.3 PPG, 1.31 YD. DISPLACED W/ 149 BBLS WATER, BUMPED PLUG, FLOATS HELD. RD CEMENTERS AND CLEANED PITS. RELEASED ENSIGN RIG #146 ON JULY 6, 2010 @ 09:00 HRS.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
July 08, 2010

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Andy Lytle	720 929-6100	Regulatory Analyst
SIGNATURE N/A		**DATE** 7/7/2010

RECEIVED July 07, 2010

API Well No: 43047508570000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER:
ML 23612

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:
NATURAL BUTTES

1. TYPE OF WELL
Gas Well

8. WELL NAME and NUMBER:
NBU 1021-12B4BS

2. NAME OF OPERATOR:
KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER:
43047508570000

3. ADDRESS OF OPERATOR:
P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER:
720 929-6007 Ext

9. FIELD and POOL or WILDCAT:
NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
0336 FSL 2422 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: SWSE Section: 01 Township: 10.0S Range: 21.0E Meridian: S

COUNTY:
UINTAH

STATE:
UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
✓ DRILLING REPORT Report Date: 8/31/2010	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	✓ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

THE SUBJECT WELL WAS PLACED ON PRODUCTION ON AUGUST 31, 2010 AT 11:30 A.M. THE CHRONOLOGICAL WELL HISTORY WILL BE SUBMITTED WITH THE WELL COMPLETION REPORT.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
September 02, 2010

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Andy Lytle	720 929-6100	Regulatory Analyst
SIGNATURE		**DATE**
N/A		8/31/2010

RECEIVED August 31, 2010

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

AMENDED REPORT ☐ (highlight changes) FORM 8

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. LEASE DESIGNATION AND SERIAL NUMBER: ML 23612
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT or CA AGREEMENT NAME: UTU63047A
8. WELL NAME and NUMBER: NBU 1021-12B4BS
9. API NUMBER: 4304750857
10. FIELD AND POOL, OR WILDCAT: NATURAL BUTTES

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ DRY ☐ OTHER

b. TYPE OF WORK: NEW WELL ☑ HORIZ. LATS. ☐ DEEP-EN ☐ RE-ENTRY ☐ DIFF. RESVR. ☐ OTHER

2. NAME OF OPERATOR: KERR MCGEE OIL & GAS ONSHORE, L.P.

3. ADDRESS OF OPERATOR: P.O.BOX 173779 CITY DENVER STATE CO ZIP 80217
PHONE NUMBER: (720) 929-6100

4. LOCATION OF WELL (FOOTAGES)
AT SURFACE: SWSE 336 FSL 2422 FEL S1, T10S, R21E
AT TOP PRODUCING INTERVAL REPORTED BELOW: NWNE 532 FNL 1938 FEL S12, T10S, R21E
AT TOTAL DEPTH: NWNE 904 FNL 1735 FEL S12, T10S, R21E

11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SWSE 1 10S 21E S
12. COUNTY: UINTAH
13. STATE: UTAH

14. DATE SPUDDED: 5/10/2010
15. DATE T.D. REACHED: 7/4/2010
16. DATE COMPLETED: 8/31/2010 ABANDONED ☐ READY TO PRODUCE ☑
17. ELEVATIONS (DF, RKB, RT, GL): 5221 GL

18. TOTAL DEPTH: MD 9,624 TVD 9,402
19. PLUG BACK T.D.: MD 9,566 TVD 9,349
20. IF MULTIPLE COMPLETIONS, HOW MANY? *
21. DEPTH BRIDGE PLUG SET: MD TVD

22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)
RABL-RPM

23.
WAS WELL CORED? NO ☑ YES ☐ (Submit analysis)
WAS DST RUN? NO ☑ YES ☐ (Submit report)
DIRECTIONAL SURVEY? NO ☐ YES ☑ (Submit copy)

24. CASING AND LINER RECORD (Report all strings set in well)

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
20"	14" STL	36.7#		40		28			
11"	8 5/8" J-55	28#		2,237		725			
7 7/8"	4 1/2" I-80	11.6#		9,609		1,471			

25. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 3/8"	8,941							

26. PRODUCING INTERVALS

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)
(A) WASATCH	5,350	5,567		
(B) MESAVERDE	7,510	9,462		
(C)				
(D)				

27. PERFORATION RECORD

INTERVAL (Top/Bot - MD)		SIZE	NO. HOLES	PERFORATION STATUS
5,350	5,567	0.36	24	Open ☑ Squeezed ☐
7,510	9,462	0.36	144	Open ☑ Squeezed ☐
				Open ☐ Squeezed ☐
				Open ☐ Squeezed ☐

28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
5350 - 9462	PUMP 11,286 BBLS SLICK H2O & 420,038 LBS 30/50 SAND

29. ENCLOSED ATTACHMENTS:

☐ ELECTRICAL/MECHANICAL LOGS ☐ GEOLOGIC REPORT ☐ DST REPORT ☑ DIRECTIONAL SURVEY
☐ SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION ☐ CORE ANALYSIS ☐ OTHER:

30. WELL STATUS: PROD

RECEIVED
OCT 19 2010
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(5/2000) (CONTINUED ON BACK)

31. INITIAL PRODUCTION — **INTERVAL A (As shown in item #26)**

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
8/31/2010	9/5/2010	24		0	1,838	805	FLOWING

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:
20/64	1,599	2,452					0	1,838	805	PROD

INTERVAL B (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL C (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL D (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)

33. SUMMARY OF POROUS ZONES (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
GREEN RIVER	1,440				
BIRD'S NEST	1,714				
MAHOGANY	2,189				
WASATCH	4,717	7,327			
MESAVERDE	7,327	9,624	TD		

35. ADDITIONAL REMARKS (Include plugging procedure)

Attached is the chronological well history and final survey. Completion chrono details individual frac stages.

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

NAME (PLEASE PRINT) ANDREW LYTLE TITLE REGULATORY ANALYST

SIGNATURE DATE 10/8/2010

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

** ITEM 24: Cement Top – Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

(5/2000)

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well Information

Well	NBU 1021-12B4BS	**Wellbore No.**	OH
Well Name	NBU 1021-12B4BS	**Common Name**	NBU 1021-12B4BS
Project	UTAH-UINTAH	**Site**	NBU 1021-1O PAD
Vertical Section Azimuth	151.01 (°)	**North Reference**	True
Origin N/S	0.0 (ft)	**Origin E/W**	0.0 (ft)
Spud Date	5/14/2010	**UWI**	SW/SE/0/10/S/21/E/1/0/0/6/PM/S/336.00/E/0/2,422.00/0/0
Active Datum	RKB @5,230.01ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	**Company**	WEATHERFORD
Started	5/14/2010	**Ended**	
Tool Name	MWD	**Engineer**	Anadarko

2.1.1 Tie On Point

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)
0.00	0.00	0.00	0.00	0.00	0.00

2.1.2 Survey Stations

Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Build (°/100ft)	Turn (°/100ft)	TFace (°)
5/14/2010	Tie On	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5/15/2010	NORMAL	263.00	0.13	263.87	263.00	-0.03	-0.30	-0.12	0.05	0.05	0.00	263.87
	NORMAL	359.00	1.31	131.99	358.99	-0.78	0.41	0.88	1.46	1.23	-137.37	-135.84
	NORMAL	454.00	2.56	146.62	453.94	-3.28	2.39	4.02	1.40	1.32	15.40	28.98
	NORMAL	549.00	2.75	149.49	548.84	-7.01	4.71	8.42	0.24	0.20	3.02	36.42
	NORMAL	645.00	2.63	148.62	644.73	-10.88	7.03	12.92	0.13	-0.12	-0.91	-161.64
	NORMAL	741.00	2.50	150.62	740.63	-14.58	9.20	17.21	0.16	-0.14	2.08	146.45
	NORMAL	836.00	2.63	150.99	835.54	-18.29	11.27	21.46	0.14	0.14	0.39	7.44
	NORMAL	932.00	2.44	149.37	931.45	-21.98	13.38	25.71	0.21	-0.20	-1.69	-160.15
	NORMAL	1,027.00	2.44	148.62	1,026.36	-25.44	15.47	29.75	0.03	0.00	-0.79	-90.37
	NORMAL	1,123.00	2.38	147.74	1,122.27	-28.87	17.59	33.78	0.07	-0.06	-0.92	-148.78
	NORMAL	1,218.00	2.81	159.62	1,217.18	-32.72	19.46	38.05	0.72	0.45	12.51	57.39
	NORMAL	1,314.00	2.94	159.87	1,313.06	-37.24	21.12	42.81	0.14	0.14	0.26	5.63
	NORMAL	1,410.00	2.44	140.87	1,408.95	-41.14	23.26	47.26	1.06	-0.52	-19.79	-128.55
	NORMAL	1,506.00	2.75	145.24	1,504.85	-44.62	25.86	51.56	0.38	0.32	4.55	34.74
	NORMAL	1,601.00	3.00	154.87	1,599.74	-48.74	28.22	56.31	0.57	0.26	10.14	67.50
	NORMAL	1,697.00	2.88	153.49	1,695.61	-53.17	30.36	61.22	0.15	-0.12	-1.44	-150.15
	NORMAL	1,792.00	2.69	157.99	1,790.50	-57.37	32.26	65.82	0.30	-0.20	4.74	133.22
	NORMAL	1,887.00	2.81	161.99	1,885.39	-61.65	33.82	70.32	0.24	0.13	4.21	59.99
	NORMAL	1,980.00	2.38	150.24	1,978.29	-65.50	35.48	74.49	0.73	-0.46	-12.63	-134.72
	NORMAL	2,074.00	2.19	146.24	2,072.22	-68.69	37.45	78.23	0.26	-0.20	-4.26	-141.98

2.1.2 Survey Stations (Continued)

Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Build (°/100ft)	Turn (°/100ft)	TFace (°)
5/15/2010	NORMAL	2,200.00	2.31	160.74	2,198.12	-73.09	39.62	83.13	0.46	0.10	11.51	85.40

2.2 Survey Name: PRODUCTION

Survey Name	PRODUCTION	**Company**	WEATHERFORD
Started	6/27/2010	**Ended**	
Tool Name	MWD	**Engineer**	Anadarko

2.2.1 Tie On Point

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)
2,200.00	2.31	160.74	2,198.12	-73.09	39.62

2.2.2 Survey Stations

Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Build (°/100ft)	Turn (°/100ft)	TFace (°)
6/27/2010	Tie On	2,200.00	2.31	160.74	2,198.12	-73.09	39.62	83.13	0.00	0.00	0.00	0.00
6/29/2010	NORMAL	2,319.00	2.50	163.03	2,317.02	-77.83	41.17	88.03	0.18	0.16	1.92	27.98
	NORMAL	2,410.00	4.70	147.12	2,407.84	-82.86	43.78	93.70	2.63	2.42	-17.48	-32.50
	NORMAL	2,501.01	7.57	139.94	2,498.31	-90.58	49.66	103.30	3.26	3.15	-7.89	-18.56
	NORMAL	2,591.01	8.56	144.48	2,587.42	-100.57	57.37	115.77	1.31	1.10	5.04	35.02
	NORMAL	2,682.01	8.56	144.36	2,677.40	-111.59	65.25	129.23	0.02	0.00	-0.13	-90.06
	NORMAL	2,773.01	9.25	145.86	2,767.31	-123.15	73.30	143.24	0.80	0.76	1.65	19.34
	NORMAL	2,863.01	10.75	147.73	2,855.94	-136.23	81.84	158.83	1.71	1.67	2.08	13.14
	NORMAL	2,954.01	13.06	146.98	2,944.97	-152.03	91.98	177.56	2.54	2.54	-0.82	-4.20
	NORMAL	3,045.01	14.71	146.78	3,033.31	-170.32	103.91	199.34	1.81	1.81	-0.22	-1.76
	NORMAL	3,135.01	16.13	152.23	3,120.07	-190.94	116.00	223.23	2.25	1.58	6.06	48.23
	NORMAL	3,226.01	17.88	149.98	3,207.09	-214.22	128.87	249.84	2.05	1.92	-2.47	-21.69
	NORMAL	3,317.01	19.38	150.11	3,293.32	-239.41	143.39	278.91	1.65	1.65	0.14	1.65
	NORMAL	3,407.01	19.69	148.23	3,378.14	-265.25	158.81	308.98	0.78	0.34	-2.09	-64.64
	NORMAL	3,498.01	20.88	150.73	3,463.50	-292.43	174.81	340.51	1.62	1.31	2.75	37.24
	NORMAL	3,589.01	21.75	154.73	3,548.28	-321.82	189.94	373.56	1.86	0.96	4.40	60.98
	NORMAL	3,679.01	22.00	150.23	3,631.80	-351.54	205.43	407.05	1.88	0.28	-5.00	-83.61
6/30/2010	NORMAL	3,770.01	21.56	152.86	3,716.31	-381.21	221.52	440.81	1.18	-0.48	2.89	115.49
	NORMAL	3,861.01	20.06	147.86	3,801.38	-409.31	237.45	473.11	2.55	-1.65	-5.49	-132.50
	NORMAL	3,951.01	19.80	149.51	3,885.99	-435.52	253.40	503.76	0.69	-0.29	1.83	115.58
	NORMAL	4,042.01	19.56	150.23	3,971.67	-462.02	268.78	534.40	0.37	-0.26	0.79	135.05
	NORMAL	4,133.01	19.63	149.48	4,057.40	-488.41	284.11	564.91	0.29	0.08	-0.82	-74.80
	NORMAL	4,223.01	19.88	147.98	4,142.11	-514.41	299.90	595.30	0.63	0.28	-1.67	-64.46
	NORMAL	4,314.01	20.81	152.86	4,227.44	-541.91	315.48	626.91	2.13	1.02	5.36	63.57
	NORMAL	4,405.01	22.88	156.48	4,311.90	-572.52	329.92	660.69	2.71	2.27	3.98	34.74
	NORMAL	4,495.01	21.75	155.48	4,395.16	-603.74	343.82	694.73	1.32	-1.26	-1.11	-161.89
	NORMAL	4,586.01	21.19	153.11	4,479.85	-633.75	358.25	727.97	1.13	-0.62	-2.60	-123.94
	NORMAL	4,677.01	21.31	150.86	4,564.66	-662.86	373.75	760.94	0.91	0.13	-2.47	-82.68
	NORMAL	4,767.01	21.42	150.34	4,648.48	-691.42	389.84	793.73	0.24	0.12	-0.58	-60.10
	NORMAL	4,858.01	21.13	150.73	4,733.28	-720.17	406.08	826.75	0.35	-0.32	0.43	154.17
	NORMAL	4,949.01	21.88	151.98	4,817.94	-749.45	422.07	860.11	0.97	0.82	1.37	32.01
	NORMAL	5,039.01	22.06	152.61	4,901.41	-779.26	437.72	893.77	0.33	0.20	0.70	52.92
	NORMAL	5,130.01	22.38	153.11	4,985.65	-809.88	453.42	928.16	0.41	0.35	0.55	30.81
	NORMAL	5,221.01	20.88	151.48	5,070.24	-839.59	469.00	961.69	1.78	-1.65	-1.79	-158.93
	NORMAL	5,311.01	21.44	151.48	5,154.17	-868.13	484.51	994.18	0.62	0.62	0.00	0.00
	NORMAL	5,402.01	21.19	153.73	5,238.95	-897.49	499.73	1,027.24	0.94	-0.27	2.47	108.04
	NORMAL	5,492.01	21.44	152.86	5,322.79	-926.72	514.43	1,059.93	0.45	0.28	-0.97	-52.08
	NORMAL	5,583.01	21.75	153.23	5,407.40	-956.57	529.61	1,093.40	0.37	0.34	0.41	23.89

2.2.2 Survey Stations (Continued)

Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Build (°/100ft)	Turn (°/100ft)	TFace (°)
6/30/2010	NORMAL	5,674.01	21.50	152.36	5,492.00	-986.40	544.94	1,126.92	0.45	-0.27	-0.96	-128.35
	NORMAL	5,764.01	20.63	153.23	5,575.98	-1,015.16	559.74	1,159.25	1.03	-0.97	0.97	160.64
	NORMAL	5,855.01	19.19	151.23	5,661.54	-1,042.59	574.16	1,190.23	1.75	-1.58	-2.20	-155.62
7/1/2010	NORMAL	5,946.01	17.50	151.23	5,747.92	-1,067.69	587.94	1,218.87	1.86	-1.86	0.00	180.00
	NORMAL	6,036.01	15.88	148.98	5,834.12	-1,090.11	600.80	1,244.70	1.94	-1.80	-2.50	-159.33
	NORMAL	6,127.01	14.72	147.72	5,921.90	-1,110.55	613.39	1,268.69	1.33	-1.27	-1.38	-164.61
	NORMAL	6,218.01	13.56	147.61	6,010.14	-1,129.34	625.28	1,290.88	1.28	-1.27	-0.12	-178.73
	NORMAL	6,308.01	12.50	151.23	6,097.82	-1,146.78	635.62	1,311.15	1.49	-1.18	4.02	144.16
	NORMAL	6,399.01	11.19	150.98	6,186.88	-1,163.14	644.64	1,329.83	1.44	-1.44	-0.27	-177.88
	NORMAL	6,490.01	10.13	150.58	6,276.31	-1,177.83	652.86	1,346.67	1.17	-1.16	-0.44	-176.20
	NORMAL	6,580.01	7.88	153.11	6,365.20	-1,190.23	659.54	1,360.75	2.54	-2.50	2.81	171.27
	NORMAL	6,671.01	6.31	148.23	6,455.50	-1,200.04	664.99	1,371.98	1.85	-1.73	-5.36	-161.41
	NORMAL	6,762.01	4.69	153.86	6,546.08	-1,207.64	669.27	1,380.69	1.87	-1.78	6.19	164.37
	NORMAL	6,852.01	3.25	161.98	6,635.86	-1,213.37	671.68	1,386.87	1.71	-1.60	9.02	162.69
	NORMAL	6,943.01	1.75	181.48	6,726.77	-1,217.21	672.44	1,390.60	1.87	-1.65	21.43	159.95
	NORMAL	7,034.01	0.88	232.86	6,817.75	-1,219.02	671.84	1,391.90	1.52	-0.96	56.46	150.20
	NORMAL	7,124.01	0.92	215.78	6,907.74	-1,220.02	670.87	1,392.30	0.30	0.04	-18.98	-90.12
	NORMAL	7,215.01	0.75	317.48	6,998.73	-1,220.18	670.04	1,392.03	1.43	-0.19	111.76	145.58
	NORMAL	7,306.01	0.75	301.11	7,089.73	-1,219.43	669.13	1,390.94	0.23	0.00	-17.99	-98.18
	NORMAL	7,396.01	0.63	306.86	7,179.72	-1,218.83	668.23	1,389.98	0.15	-0.13	6.39	152.87
7/2/2010	NORMAL	7,487.02	0.69	290.23	7,270.71	-1,218.34	667.31	1,389.11	0.22	0.07	-18.27	-81.04
	NORMAL	7,578.02	0.56	287.11	7,361.71	-1,218.02	666.38	1,388.37	0.15	-0.14	-3.43	-166.89
	NORMAL	7,668.02	0.56	281.23	7,451.70	-1,217.80	665.52	1,387.77	0.06	0.00	-6.53	-92.94
	NORMAL	7,759.02	0.31	265.73	7,542.70	-1,217.74	664.84	1,387.38	0.30	-0.27	-17.03	-162.41
	NORMAL	7,850.02	0.00	100.73	7,633.70	-1,217.75	664.60	1,387.28	0.34	-0.34	0.00	-180.00
	NORMAL	7,940.02	0.13	185.23	7,723.70	-1,217.86	664.59	1,387.36	0.14	0.14	0.00	185.23
	NORMAL	8,031.02	0.38	134.73	7,814.70	-1,218.17	664.79	1,387.74	0.34	0.27	-55.49	-69.14
	NORMAL	8,122.02	0.50	129.98	7,905.70	-1,218.64	665.31	1,388.40	0.14	0.13	-5.22	-19.29
	NORMAL	8,213.02	0.63	146.48	7,996.69	-1,219.31	665.89	1,389.26	0.23	0.14	18.13	59.82
	NORMAL	8,303.02	0.63	123.86	8,086.69	-1,220.00	666.58	1,390.20	0.27	0.00	-25.13	-101.31
	NORMAL	8,394.02	0.81	134.86	8,177.68	-1,220.73	667.45	1,391.26	0.25	0.20	12.09	43.11
7/3/2010	NORMAL	8,485.02	0.80	137.67	8,268.67	-1,221.65	668.33	1,392.50	0.04	-0.01	3.09	105.62
	NORMAL	8,576.02	0.81	153.86	8,359.66	-1,222.70	669.04	1,393.76	0.25	0.01	17.79	95.59
	NORMAL	8,666.02	0.94	151.11	8,449.65	-1,223.92	669.68	1,395.13	0.15	0.14	-3.06	-19.28
	NORMAL	8,757.02	1.13	151.61	8,540.64	-1,225.36	670.47	1,396.78	0.21	0.21	0.55	2.97
	NORMAL	8,848.02	1.13	143.98	8,631.62	-1,226.88	671.42	1,398.56	0.17	0.00	-8.38	-93.81
	NORMAL	8,938.02	1.38	146.89	8,721.60	-1,228.50	672.53	1,400.52	0.29	0.28	3.23	15.76
	NORMAL	9,029.02	1.50	147.86	8,812.57	-1,230.43	673.77	1,402.81	0.13	0.13	1.07	11.97
7/4/2010	NORMAL	9,120.02	1.23	134.93	8,903.55	-1,232.13	675.09	1,404.93	0.45	-0.30	-14.21	-137.58
	NORMAL	9,210.02	1.50	133.11	8,993.52	-1,233.61	676.64	1,406.98	0.30	0.30	-2.02	-10.03
	NORMAL	9,301.02	1.44	126.86	9,084.49	-1,235.11	678.42	1,409.16	0.19	-0.07	-6.87	-113.62
	NORMAL	9,392.02	1.69	130.98	9,175.46	-1,236.68	680.35	1,411.46	0.30	0.27	4.53	26.30
	NORMAL	9,482.02	2.00	119.86	9,265.41	-1,238.33	682.71	1,414.06	0.52	0.34	-12.36	-54.76
	NORMAL	9,569.02	2.25	114.36	9,352.35	-1,239.79	685.58	1,416.72	0.37	0.29	-6.32	-41.98
	NORMAL	9,619.02	2.25	114.36	9,402.31	-1,240.60	687.37	1,418.30	0.00	0.00	0.00	0.00

US ROCKIES REGION

Operation Summary Report

Well: NBU 1021-12B4BS	Spud Conductor: 5/10/2010	Spud Date: 5/14/2010
Project: UTAH-UINTAH	Site: NBU 1021-1O PAD	Rig Name No: ENSIGN 146/146, CAPSTAR 310/310
Event: DRILLING	Start Date: 4/29/2010	End Date: 7/6/2010
Active Datum: RKB @5,230.01ft (above Mean Sea Level)	UWI: SW/SE/0/10/S/21/E/1/0/0/6/PM/S/336.00/E/0/2,422.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
5/14/2010	6:00 - 11:00	5.00	MIRU	01	A	P		MOVE RIG TO LOCATION AND SPOT IN SUB. LEVEL RIG, RAISE DERRICK. SPOT IN PITS, PUMPS, DOG HOUSE, AND GENERATOR HOUSE.
	11:00 - 15:00	4.00	MIRU	14	A	P		INSTALL RISER, NIPPLE UP BOWIE LINE, PRIME PIT PUMP AND FILL PITS, PRIME PUMPS. P/U 1.5 DEG. BENT HOUSE MOTOR SN 8058, M/U NEW BIT Q507 SN 7029294 W/ 7-16'S.
	15:00 - 16:30	1.50	DRLSUR	02	B	P		DRILL 49'-184'. SPUD 5/14/2010 15:00
	16:30 - 18:00	1.50	DRLSUR	06	A	P		TRIP OUT, LD 6" DC'S AND P/U DIRECTIONAL TOOLS.
	18:00 - 21:30	3.50	MAINT	21	D	Z		MWD PROBLEMS, TEST SECOND SET. MWD P/U DIRECTIONAL EQUIPMENT FROM ENSIGN 146.. TROUBLE SHOT AND REPAIR MWD TOOL.
	21:30 - 23:00	1.50	DRLSUR	06	A	P		P/U MWD TOOL, TRIP IN W/ DIRECTIONAL ASSEMBLY. INSTALL NEW ROT HEAD RUBBER ON DP.
	23:00 - 0:00	1.00	DRLSUR	02	D	P		DRILL W/ MWD 184'- 285' (101', 101'/HR) WOB 13K, ROT 50, DH RPM 88, GPM 550, ON/OFF PSI 750/550, UP/ DOWN/ ROT 29/27/27.
5/15/2010	0:00 - 12:30	12.50	DRLSUR	02	D	P		DRILL W/ MWD 285'- 1496' (1211', 97'/HR) WOB 13K, ROT. 50, DH RPM 88, GPM 550. ON/OFF PSI 960/800, UP/DOWN/ROT 52/43/47. LOSS CIRC. 1489'. DRILL W/ AERATED WATER. HOLD 2 DEGREE.
	12:30 - 13:00	0.50	DRLSUR	07	A	P		RIG SERVICE.
	13:00 - 0:00	11.00	DRLSUR	02	D	P		DRILL W/ MWD 1496'- 2255' (759', 69'/HR) TD 4/15/2010 23:59. WOB 13K, ROT. 50, DH RPM 88, GPM 550. ON/OFF PSI 900/800, UP/DOWN/ROT 70/55/62. LOSS CIRC. 1489'. DRILL W/ AERATED WATER. GAIN PIT VOLUME. HOLD 2 DEGREE.
5/16/2010	0:00 - 1:30	1.50	CSG	05	F	P		CIRC AND CLEAN HOLE W/ AIR AND POLY SWEEPS. NO CIRC WITH OUT AIR.
	1:30 - 4:30	3.00	CSG	06	D	P		LDDS. LD DIRECTIONAL TOOLS. LD BIT AND MOTOR.
	4:30 - 8:00	3.50	CSG	12	C	P		RUN 50 JTS OF 8-5/8 28# IJ-55 CSG W/ 8RD LTC THREADS AND LAND FLOAT SHOE 2237'KB, RUN BAFFLE PLATE IN TOP OF SHOE JT LANDED @ 2191' KB. FILL CSG 200', 1200', 2237'.
	8:00 - 9:30	1.50	CSG	12	E	P		PUMP 120 BBLS AHEAD, PUMP 20 BBLS OF GEL WATER FOR SPACER, PUMP 225 SX (46 BBLS) OF 15.8#, 1.15 YD 5 GAL/SK CLASS G 2% CALC + .25 LB/SKS SUPER FLAKES CEMENT. DISPLACE W/ 136 BBLS OF H20 W/ 70 PSI LIFT @ 2.5 BBLS A MINUTE. BUMP PLUG 500 PSI. FLOAT HELD. NO CIRC THROUGH OUT JOB. TOP OUT W/ 100 SX (20.2 BBLS) 15.8#, 1.15 YD, 5 GAL/ SK 2% CALC CEMENT. RIG DOWN HEAD.
	9:30 - 10:30	1.00	RDMO	14	A	P		CUT OFF AND HANG RISER AND AND ROT HEAD. INSTALL HANG OFF BAR. LAND CSG AND BREAK OFF LANDING JT. CUT OFF CSG COLLAR AND TACK CAP ON TOP OF CSG. BREAK DOWN BOWIE LINE.

US ROCKIES REGION

Operation Summary Report

Well: NBU 1021-12B4BS	Spud Conductor: 5/10/2010	Spud Date: 5/14/2010
Project: UTAH-UINTAH	Site: NBU 1021-1O PAD	Rig Name No: ENSIGN 146/146, CAPSTAR 310/310
Event: DRILLING	Start Date: 4/29/2010	End Date: 7/6/2010
Active Datum: RKB @5,230.01ft (above Mean Sea Level)	UWI: SW/SE/0/10/S/21/E/1/0/0/6/PM/S/336.00/E/0/2,422.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	10:30 - 11:00	0.50	CSG	12	E	P		TOP OUT 100 SX (20.4BBLS)OF 15.8#, 1.15 YD. 5 GAL SK 4% CALC. NO CEMENT TO SURFACE. WILL TOP OUT ON NEXT JOB. RELEASE RIG 5/16/2010 11:00 TOP OUT ON NEXT 2 JOBS FOR A TOTAL OF 300 MORE SX 15.8# OF CEMENT. CEMENT TO SURFACE AND STAYING.
6/27/2010	21:30 - 22:30	1.00	MIRU	01	C	P		RDRT - SKID RIG - RURT
	22:30 - 23:30	1.00	DRLPRO	14	A	P		N/UP BOPE
	23:30 - 0:00	0.50	DRLPRO	15	A	P		TEST BOPE, RAMS, CHOKE, CHOKE LINE, MANUAL VALVES, FLOOR VALVES, HCR & IBOP 250 LOW 5000 HIGH, ANNULAR 250 LOW 2500 HIGH, CASING 1500
6/28/2010	0:00 - 3:30	3.50	DRLPRO	15	A	P		TEST BOPE, RAMS, CHOKE, CHOKE LINE, MANUAL VALVES, FLOOR VALVES, HCR & IBOP 250 LOW 5000 HIGH, ANNULAR 250 LOW 2500 HIGH, CASING 1500
	3:30 - 4:00	0.50	DRLPRO	14	B	P		INSTALL WEARBUSHING
	4:00 - 6:00	2.00	DRLPRO	06	A	P		P/UP MM, BIT & DIRECTIONAL TOOLS, SCRIBE & ORIENT, RIH, TAG CMT @ 2140' - INSTALL ROTATING HEAD
	6:00 - 9:00	3.00	DRLPRO	02	F	P		DRILL CEMENT & FE F/2140' TO 2212' - UNABLE TO DRILL CMT
	9:00 - 12:00	3.00	DRLPRO	22	O	X		POOH - LDN PDC BIT - CUTTERS BROKEN OR CHIPPED (ALL AREAS) - RACK BACK DIRECTIONAL BHA & .28 RPG 1.75 deg MM
	12:00 - 13:30	1.50	DRLPRO	22	O	X		P/UP .16 RPG MM & TRI-CONE MILL TOOTH, RIH
	13:30 - 14:00	0.50	DRLPRO	08	A	Z		IRON DERRICKHAND - POWER SHOE STUCK ON STAND
	14:00 - 14:30	0.50	DRLPRO	07	A	P		SERVICE IRON DERRIKHAND
	14:30 - 16:30	2.00	DRLPRO	22	O	X		RIH TO 2212'
	16:30 - 19:00	2.50	DRLPRO	02	F	P		DRILL CMT F/2212' TO 2230' - PUMP HI-VIS PILLS - NO SIGNS OF JUNK IN HOLE - MISC METAL SHAVINGS ACROSS SHAKERS
	19:00 - 20:30	1.50	DRLPRO	22	O	X		POOH TRI-CONE - L/DN .16 RPG MM & TRI-CONE BIT - NO INDICATIONS ON BIT OF JUNK IN HOLE
	20:30 - 21:00	0.50	DRLPRO	08	B	Z		CHANGE RIG SMART SENSOR ON TOP DRIVE
	21:00 - 23:30	2.50	DRLPRO	06	A	P		P/UP PDC, .28 RPG MM, 1.76 deg - RIH TO 2230'
	23:30 - 0:00	0.50	DRLPRO	02	D	P		DRILL CEMENT F/2230' TO 2238'
6/29/2010	0:00 - 1:00	1.00	DRLPRO	02	F	P		DRILL CEMENT F/2238' TO 2240' - UNABLE TO DRILL CMT
	1:00 - 3:00	2.00	DRLPRO	06	A	P		POOH RACK BACK DIRECTIONAL BHA - L/DN PDC BIT (OBSERVED NO DAMAGE TO BIT)
	3:00 - 6:00	3.00	DRLPRO	06	A	P		P/UP .16 RPG 0 deg MM & TRI-CONE MILL TOOTH BIT - RIH
	6:00 - 7:30	1.50	DRLPRO	02	F	P		DRLG F/2240' TO 2270'
	7:30 - 9:30	2.00	DRLPRO	06	A	P		POOH L/DN .16 MM & TRI-CONE
	9:30 - 10:00	0.50	DRLPRO	07	A	P		RIG SER - FUNCTION PIPE/BLIND RAMS
	10:00 - 15:00	5.00	DRLPRO	06	B	P		P/UP PDC, HUNTING 1.83 deg .21 RPG MM & DIRECTIONAL BHA - SCRIBE & ORIENT SAME, RIH TO 2260'
	15:00 - 19:00	4.00	DRLPRO	02	D	P		DRILL/SLIDE F/2260' TO 2720' (460' @ 115fph) MW 8.4, VIS 27, RPM 40, MM RPM 106, TQ 5/10, GPM 506, P/UP S/O ROT 104/97/98, SLIDE2374 2386, 2420 2430, 2465 2475, 2510 2518, 2556 2566, 2646, 2656, 2692 2700, (SLIDE 68' 25% - ROT 392' 75%)
	19:00 - 19:30	0.50	DRLPRO	08	A	Z		IRON ROUGHNECK - IRON ROUGHNECK NOT MOVING OUT OF ZONE A IN RIG SMART SYSTEM - RECALIBRATE IRON ROUGHNECK POSITION

US ROCKIES REGION

Operation Summary Report

Well: NBU 1021-12B4BS	Spud Conductor: 5/10/2010	Spud Date: 5/14/2010
Project: UTAH-UINTAH	Site: NBU 1021-1O PAD	Rig Name No: ENSIGN 146/146, CAPSTAR 310/310
Event: DRILLING	Start Date: 4/29/2010	End Date: 7/6/2010
Active Datum: RKB @5,230.01ft (above Mean Sea Level)	UWI: SW/SE/0/10/S/21/E/1/0/0/6/PM/S/336.00/E/0/2,422.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	19:30 - 0:00	4.50	DRLPRO	02	D	P		DRILL/SLIDE F/2720' TO 3190' (470' @104fph) MW 8.4, VIS 27, WOB 20, RPM 40, MM RPM 106, TQ 6/8, GPM 506, PSI OFF/ON 1025/1300, P/UP S/O ROT 120/108/110 SLIDE 2737 2749, 2782 2794, 2828 2840, 2873 2885, 2918 2930, 2964 2974, 3009 3019, 3054 3066, 3100 3112, 3145 3157, (SLIDE 116' 35% - ROT 354' 65%
6/30/2010	0:00 - 15:00	15.00	DRLPRO	02	D	P		DRILL/SLIDE F/3190' TO 4640' (1450' @ 97fph) MW 8.5, VIS 28, WOB 20, RPM 45, MM RPM 106, TQ 6/8, GPM 506, PSI ON/OFF 1150/1475, P/UP S/O ROT 153/120/128, SLIDE 3190 3198, 3236 3248, 3281 3291, 3326 3336, 3372 3382, 3417 3425, 3462 3474, 3508 3520, 3553 3563, 3598 3608, 3644 3658, 3734, 3750, 3825 3843, 3916 3936, 4052 4066, 4097 4113, 4142 4155, 4188 4205, 4233 4247, 4278 4296, 4323 4337, 4369 4393, 4414 4428, 4460 4469, 4550 4560, 4596 4605, (SLIDE 355' 38% - ROT 1095' 62%)
	15:00 - 15:30	0.50	DRLPRO	07	A	P		RIG SER
	15:30 - 0:00	8.50	DRLPRO	02	D	P		DRILL/SLIDE F/4640' TO 5415' (775' @ 91fph) MW 9.1, VIS 38, WOB 20, RPM 45, MM RPM 106, TQ 6/8, GPM 506, PSI OFF/ON 1775/2175, P/UP S/O ROT 165/126/138, SLIDE 4641 4653, 4686 46956, 4732 4742, 4777 4786, 4822 4831, 4869 4877, 4913 4931, 5004 5020, 5094 5104, 5276 5290, 5366 5376 (SLIDE 126' 32% - ROT 649' 68%)
7/1/2010	0:00 - 17:30	17.50	DRLPRO	02	D	P		DRILL/SLIDE F/5415' TO 6817' (1402' @ 80fph) MW 10.3, VIS 42, LCM 20%, WOB 20, RPM 45, MM RPM 106, TQ 7/10, GPM 506, PSI/ON/OFF, P/UP S/O ROT 203/142/155, SLIDE 5457 5469, 5547 5557, 5638 5648, 6273 6281, 6545 6555, 6635 6643, 6726 6736, (SLIDE 68' 16% - ROT 1334' 84%)
	17:30 - 18:00	0.50	DRLPRO	07	D	P		RIG SER
	18:00 - 0:00	6.00	DRLPRO	02	D	P		DRILL/SLIDE F/6817' TO 7200' (383' @ 64fph) MW 10.6, VIS 45, LCM 20%, WOB 22, RPM 45, MM RPM 106, TQ 6/11, PSI OFF/ON 2025/2400, P/UP S/O ROT 205/157/166, SLIDE 6817 6827, 6907 6919, 6998 7010, 70179 7192, (SLIDE 47' 22 % - ROT 336' 78%)
7/2/2010	0:00 - 12:30	12.50	DRLPRO	02	D	P		DRILL/SLIDE F/7200' TO 7905' (705' @ 56fph) MW 10.9, VIS 42, LCM 18%, WOB 22, RPM 45, MM RPM 106, TQ 7/12, GPM 506, PIS OFF/ON 2010/2425, P/UP S/O ROT 237/152/172 (ROT 705' 100%)
	12:30 - 13:00	0.50	DRLPRO	07	A	P		RIG SER
	13:00 - 0:00	11.00	DRLPRO	02	D	P		DRILL/SLIDE F/7905' TO 8430' (525' @ 47FPH) MW 11.6, VIS 42, LCM 20%, WOB 24, RPM 45, MM RPM 106, TQ 8/12, GPM 506, PSI OFF/ON 2150/2600, P/UP S/O ROT 260/157/190, (ROT 525' 100%)
7/3/2010	0:00 - 2:00	2.00	DRLPRO	02	D	P		DRILL/SLIDE F/8430' TO 8511' (81' @ 40fph) MW 11.7, VIS 42. LCM 20%, WOB 24, RPM 45, MM RPM 106, TQ 8/12, GPM 506, PSI OFF/ON 2150/2600, P/UP S/O ROT 260/157/190, (ROT 81' 100%)
	2:00 - 10:00	8.00	DRLPRO	06	A	P		TFNB/MM, BACKREAM 7 STD TO 7881' - POOH NO PROBLEMS - L/DN MM & BIT
	10:00 - 18:30	8.50	DRLPRO	06	A	P		P/UP MM & BIT RIH to 7926' - WASH F/7926' TO 7971' - RIH F/7971' TO 8511'
	18:30 - 0:00	5.50	DRLPRO	02	D	P		DRILL/SLIDE F/8511' TO 8855' (344' @ 63fph) MW 11.7, VIS 42, LCM 20%, WOB 20, RPM 40, MM RPM 80, TQ 8/10, GPM 500, PSI OFF/ON 2200/2725, P/UP S/O ROT 230/176/184, (100% ROT) - LOST 200 BBLS MUD ON TRIP

US ROCKIES REGION

Operation Summary Report

Well: NBU 1021-12B4BS	Spud Conductor: 5/10/2010	Spud Date: 5/14/2010
Project: UTAH-UINTAH	Site: NBU 1021-1O PAD	Rig Name No: ENSIGN 146/146, CAPSTAR 310/310
Event: DRILLING	Start Date: 4/29/2010	End Date: 7/6/2010
Active Datum: RKB @5,230.01ft (above Mean Sea Level)	UWI: SW/SE/0/10/S/21/E/1/0/0/6/PM/S/336.00/E/0/2,422.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
7/4/2010	0:00 - 20:00	20.00	DRLPRO	02	D	P		DRILL/SLIDE F/8855' TO 9624' (769' @ 38fph) MW 12.4, VIS 42, LCM 20%, WOB 22, RPM 40, MM RPM 72, TQ 10/14, GPM 450, PSI OFF/ON 2025/2450, P/UP S/O ROT 270/181/191 (100% ROT) - TD WELL @ 9624' MD - 9407' TVD
	20:00 - 22:00	2.00	DRLPRO	05	C	P		CIRC & COND
	22:00 - 22:30	0.50	DRLPRO	08	B	Z		PIPE HANDLER GRABBER ASSY - UNABLE TO BREAK PIPE FROM TOP DRIVE - GRABBER ASSY WOULD NOT GRAB (BITE) ON TOOL JOINT - WASH OUT MUD F/GRABBER ASSY
	22:30 - 23:00	0.50	DRLPRO	08	A	Z		WEIGHT INDICATOR IN DRILLERS CONSOLE NOT WORKING - C/OUT WEIGHT INDICATOR
	23:00 - 0:00	1.00	DRLPRO	06	D	P		POOH TO 9349' - RACK IN DERRICK
7/5/2010	0:00 - 0:30	0.50	DRLPRO	08	B	Z		REPAIR RIG - C/OUT GRABBER DIES
	0:30 - 12:00	11.50	DRLPRO	06	D	P		POOH BACKREAM F/9349' TO 8719' 10 STD RACK IN DERRICK - POOH LDDP/BHA
	12:00 - 12:30	0.50	DRLPRO	14	B	P		RETRIEVE WEAR BUSHING
	12:30 - 23:30	11.00	CSG	12	C	P		HPJSM, R/UP FRANKS & RUN 229 JTS & 1 MARKER JT 4.5 11.60 I-80 BTC PROD CASING FLOAT SHOE @ 9614', FLOAT COLLAR @ 9571', MARKER JT @ 4797'
	23:30 - 0:00	0.50	CSG	05	D	P		CIRC
7/6/2010	0:00 - 1:00	1.00	CSG	05	D	P		CIRC
	1:00 - 4:00	3.00	CSG	12	E	P		HPJSM, R/UP BJ & CEMENT 4.5" PROD CASING - TEST LINES 4900, PUMPED 40 BBL FRESH WATER SPACER, 496 SKS LEAD 12.4 PPG 2.03 YIELD, 975 SKS TAIL 14.3 PPG 1.31 YIELD, DROPPED PLUG & DISPLACED W/149 BBLS FRESH WATER W/0.1 gal/bbl CLAYFIX II & 0.01 gal/bbl ALADACIDE G @ 2738 PSI, BUMPED PLUG @ 3344 PSI, FLOATS HELD W/1.5 BBL RETURN, GOOD RETURNS DURING CMT JOB W/20 BBLS SPACER WATER TO SURFACE - R/DN BJ
	4:00 - 9:00	5.00	DRLPRO	14	A	P		L/OUT LANDING JT, N/DN BOPE, CLEAN RIG TANKS, TRANSFER 260 BBLS MUD TO ENSIGN 139, 780 BBLS TO H&P 298 - SKID RIG 60' FORWARD - RELEASE RIG @ 09:00 7/6/10

US ROCKIES REGION

Operation Summary Report

Well: NBU 1021-12B4BS	Spud Conductor: 5/10/2010	Spud Date: 5/14/2010
Project: UTAH-UINTAH	Site: NBU 1021-1O PAD	Rig Name No: ENSIGN 146/146, CAPSTAR 310/310
Event: DRILLING	Start Date: 4/29/2010	End Date: 7/6/2010
Active Datum: RKB @5,230.01ft (above Mean Sea Level)	UWI: SW/SE/0/10/S/21/E/1/0/0/6/PM/S/336.00/E/0/2,422.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	9:00 - 9:00	0.00	DRLPRO					CONDUCTOR CASING: Cond. Depth set: 49 Cement sx used: N/A SPUD DATE/TIME: 5/14/2010 15:00 SURFACE HOLE: Surface From depth: 44 Surface To depth: 2,260 Total SURFACE hours: 26.00 Surface Casing size: 8 5/8 # of casing joints ran: 50 Casing set MD: 2,242.0 # sx of cement: 325 Cement blend (ppg:) 15.8 Cement yield (ft3/sk): 1.15 # of bbls to surface: NO CEMENT TO SURFACE Describe cement issues: TOP OUT W/ 100 SKS. NO CMT. TO SURFACE Describe hole issues: N/A PRODUCTION: Rig Move/Skid start date/time: 6/27/2010 21:30 Rig Move/Skid finish date/time: 6/27/2010 22:30 Total MOVE hours: 1.0 Prod Rig Spud date/time: 6/28/2010 6:00 Rig Release date/time: 7/6/2010 8:00 Total SPUD to RR hours: 194.0 Planned depth MD 9,608 Planned depth TVD 9,385 Actual MD: 9,624 Actual TVD: 9,407 Open Wells $: $758,227 AFE $: $751,009 Open wells $/ft: $78.42 PRODUCTION HOLE: Prod. From depth: 2,260 Prod. To depth: 9,624 Total PROD hours: 106.5 Log Depth: NO LOGS REQUIRED Production Casing size: 4 1/2 # of casing joints ran: 230 Casing set MD: 9,614.0 # sx of cement: 1,471 Cement blend (ppg:) LEAD 12.4, TAIL 14.3 Cement yield (ft3/sk): LEAD 2.03, TAIL 1.31 Est. TOC (Lead & Tail) or 2 Stage : 4300 Describe cement issues: 20 BBLS SPACER WATER TO SURFACE Describe hole issues: MUD LOSSES MINIMAL DIRECTIONAL INFO: KOP: 184 Max angle: 22.88 Departure: 1418.30 Max dogleg MD: 3.26

US ROCKIES REGION

Operation Summary Report

Well: NBU 1021-12B4BS	Spud Conductor: 5/10/2010	Spud Date: 5/14/2010	
Project: UTAH-UINTAH	Site: NBU 1021-1O PAD		Rig Name No: MILES-GRAY 1/1
Event: COMPLETION	Start Date: 8/13/2010		End Date: 8/30/2010
Active Datum: RKB @5,230.01ft (above Mean Sea Level)	UWI: SW/SE/0/10/S/21/E/1/0/0/6/PM/S/336.00/E/0/2,422.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
8/16/2010	7:00 - 7:15	0.25	COMP	48		P		HSM
	7:15 - 18:00	10.75	COMP	36	E	P		MIRU CASED HOLE SOLUTIONS & FRAC TECH, P/U RIH, PERF MESAVERDE USING 3-3/8 EXPEND, 23 GRM, 0.36" HOLE. 9460'-9462' 4 SPF, 90* PH, 8 HOLES. 9435'-9437' 4 SPF, 90* PH, 8 HOLES. 9407'-9409' 4 SPF, 90* PH, 8 HOLES [24 HOLES] STG #1] WHP=1043#, BRK DN PERFS=3299#, INJ RT=51.4 , INJ PSI=5909#, ISIP=2547#, FG=.70, PUMP'D 652 BBLS SLK WTR W/ 22517# 30/50 MESH W/ 5000# RESIN COAT IN TAIL, ISIP=#, FG=., AR=, AP=#, MR=, MP=#, NPI=#, 24/24 CALC PERFS OPEN. STG #2] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @ 9211' PERF MESAVERDE USING 3-3/8 EXPEND, 23 GRM, 0.36" HOLE. 9180'-9181' 4 SPF, 90* PH, 4 HOLES. 9127'-9128' 4 SPF, 90* PH, 4 HOLES. 9088'-9089' 4 SPF, 90* PH, 4 HOLES. 9069'-9070' 4 SPF, 90* PH, 4 HOLES. 9032'-9033' 4 SPF, 90* PH, 4 HOLES. 8987'-8988' 4 SPF, 90* PH, 4 HOLES. [24 HOLES] STG #2] WHP=1184#, BRK DN PERFS=2846#, INJ RT=50, INJ PSI=4507#, ISIP=2226#, FG=.68, PUMP'D 3572 BBLS SLK WTR W/ 121027# 30/50 MESH W/ NO RESIN COAT IN TAIL, ISIP=2845#, FG=.75, AR=50, AP=4100#, MR=53.5, MP=6557#, NPI=619#, 24/24 CALC PERFS OPEN. [PRESURE STARTED COMING UP CUT SAND 25,000# SHORT] SWIFN.
8/17/2010	6:30 - 6:45	0.25	COMP	48		P		HSM,

Operation Summary Report

Well: NBU 1021-12B4BS	Spud Conductor: 5/10/2010	Spud Date: 5/14/2010
Project: UTAH-UINTAH	Site: NBU 1021-1O PAD	Rig Name No: MILES-GRAY 1/1
Event: COMPLETION	Start Date: 8/13/2010	End Date: 8/30/2010
Active Datum: RKB @5,230.01ft (above Mean Sea Level)	UWI: SW/SE/0/10/S/21/E/1/0/0/6/PM/S/336.00/E/0/2,422.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	6:45 - 6:45	0.00	COMP	36	E	P		STG #3] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @8907' PERF MESAVERDE USING 3-3/8 EXPEND, 23 GRM, 0.36" HOLE. 8876'-8877' 4 SPF, 90* PH, 4 HOLES. 8834'-8835' 4 SPF, 90* PH, 4 HOLES. 8804'-8806' 4 SPF, 90* PH, 8 HOLES. 8781'-8782' 4 SPF, 90* PH, 4 HOLES. 8728'-8729' 4 SPF, 90* PH, 4 HOLES. [24 HOLES] STG #3] WHP=1838#, BRK DN PERFS=3676#, INJ RT=49.6 , INJ PSI=5279#, ISIP=2159#, FG=.68, PUMP'D 2485 BBLS SLK WTR W/ 99069# 30/50 MESH W/ 5000# RESIN COAT IN TAIL, ISIP=2581#, FG=.72, AR=50, AP=4300#, MR=52.7, MP=5850#, NPI=422#, 24/24 CALC PERFS OPEN. STG #4] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @ 8364' PERF MESAVERDE USING 3-3/8 EXPEND, 23 GRM, 0.36" HOLE 8332'-8334' 4 SPF, 90* PH, 8 HOLES. 8212'-8213' 4 SPF, 90* PH, 4 HOLES. 8163'-8164' 4 SPF, 90* PH, 4 HOLES. 8079'-8081' 4 SPF, 90* PH, 8 HOLES [24 HOLES] STG #4] WHP=1031#, BRK DN PERFS=6092#, INJ RT=46.6, INJ PSI=4740#, ISIP=2250#, FG=.68, PUMP'D 592 BBLS SLK WTR W/ 19293# 30/50 MESH W/ 5000# RESIN COAT IN TAIL, ISIP=2333#, FG=.72, AR=50.6, AP=4300#, MR=51.1, MP=6372#, NPI=83#, 24/24 CALC PERFS OPEN. STG #5] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @ 7858' PERF MESAVERDE USING 3-3/8 EXPEND, 23 GRM, 0.36" HOLE. 7827'-7828' 4 SPF, 90* PH, 4 HOLES. 7759'-7760' 4 SPF, 90* PH, 4 HOLES. 7739'-7740' 4 SPF, 90* PH, 4 HOLES. 7709'-7710' 4 SPF, 90* PH, 4 HOLES. 7650'-7651' 4 SPF, 90* PH, 4 HOLES. 7634'-7635' 4 SPF, 90* PH, 4 HOLES. [24 HOLES] STG #5] WHP=1250#, BRK DN PERFS=2080#, INJ RT=53.8 , INJ PSI=4148#, ISIP=1507#, FG=.63, PUMP'D 1905 BBLS SLK WTR W/ 73397# 30/50 MESH W/ 5000# RESIN COAT IN TAIL, ISIP=2052#, FG=.70, AR=53.7, AP=3500#, MR=54.2, MP=4701#, NPI=545#, 24/24 CALC PERFS OPEN. STG #6] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @ 7576' PERF MESAVERDE USING 3-3/8 EXPEND, 23 GRM, 0.36" HOLE. 7544'-7546' 4 SPF, 90* PH, 8 HOLES. 7510'-7514' 4 SPF, 90* PH, 16 HOLES. [24 HOLES] STG #6] WHP=1703#, BRK DN PERFS=2239#, INJ RT=54.3, INJ PSI=3767#, ISIP=1805#, FG=.67, PUMP'D 1263 BBLS SLK WTR W/ 50126# 30/50 MESH W/ 5000# RESIN COAT IN TAIL, ISIP=2193#, FG=.72, AR=54, AP=3400#, MR=55, MP=4939#, NPI=388#, 24/24 CALC PERFS OPEN. SWIFN. STG #7] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @ 5597' PERF WASATCH USING 3-3/8 EXPEND, 23 GRM, 0.36" HOLE. 5565'-5567' 4 SPF, 90* PH, 8 HOLES.

US ROCKIES REGION

Operation Summary Report

Well: NBU 1021-12B4BS	Spud Conductor: 5/10/2010	Spud Date: 5/14/2010
Project: UTAH-UINTAH	Site: NBU 1021-1O PAD	Rig Name No: MILES-GRAY 1/1
Event: COMPLETION	Start Date: 8/13/2010	End Date: 8/30/2010
Active Datum: RKB @5,230.01ft (above Mean Sea Level)	UWI: SW/SE/0/10/S/21/E/1/0/0/6/PM/S/336.00/E/0/2,422.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
								5350'-5354' 4 SPF, 90* PH, 16 HOLES. [24 HOLES] SWIFN.
8/18/2010	6:45 - 7:00	0.25	COMP	48		P		HSM
	7:00 - 13:00	6.00	COMP	36	E	P		FRAC STG # 7 WASATCH 5350'-5567' [24 HOLES] STG #7] WHP=253#, BRK DN PERFS=2863#, INJ RT=54.3, INJ PSI=3670#, ISIP=1113#, FG=.64, PUMP'D 817 BBLS SLK WTR W/ 34609# 30/50 MESH W/ 5000# RESIN COAT IN TAIL, ISIP=2193#, FG=.77, AR=51, AP3300=#, MR=54.5, MP=3794#, NPI=709#, 24/24 CALC PERFS OPEN. P/U RIH W/ HALIBURTON 8K CBP, SET FOR TOP KILL @ 5300' SWI. TOTAL SAND=420,038# TOTAL WTR=11,284 BBLS
8/27/2010	7:00 - 7:30	0.50	COMP	48		P		HSM, CHECKING WELL FOR PSI & H2S.
	7:30 - 15:00	7.50	COMP	31	I	P		ND FRAC VALVES NU BOPS, RU FLOOR & TBG EQUIP. TALLY & PU 37/8 BIT, POBS, 1.875 X/N & 168 JTS 23/8 L-80 OFF FLOAT. TAG UP @ 5300 ' L/D 2 JTS EOT @ 5269' RU DRLG EQUIP PREP TO D/O 8/30/10 SWI SDFWE.
8/30/2010	7:00 - 7:30	0.50	COMP	48		P		HSM, PRESSURE TEST BOPS.

US ROCKIES REGION

Operation Summary Report

Well: NBU 1021-12B4BS	Spud Conductor: 5/10/2010	Spud Date: 5/14/2010
Project: UTAH-UINTAH	Site: NBU 1021-1O PAD	Rig Name No: MILES-GRAY 1/1
Event: COMPLETION	Start Date: 8/13/2010	End Date: 8/30/2010
Active Datum: RKB @5,230.01ft (above Mean Sea Level)	UWI: SW/SE/0/10/S/21/E/1/0/0/6/PM/S/336.00/E/0/2,422.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	7:30 - 16:00	8.50	COMP	44	C	P		BROKE CIRC CONVENTIONAL. TEST BOPS TO 3,000# PSI, RIH. C/O 10' SAND TAG 1ST PLUG @ 5300' DRL PLG IN 6 MIN 100# PSI INCREASE RIH. C/O 30' SAND TAG 2ND PLUG @ 5597' DRL PLG IN 6 MIN 200# PSI INCREASE RIH. C/O 30' SAND TAG 3RD PLUG @ 7576' DRL PLG IN 6 MIN 400# PSI INCREASE RIH. C/O 30' SAND TAG 4TH PLUG @ 7858' DRL PLG IN 8 MIN 400# PSI INCREASE RIH. C/O 30' SAND TAG 5TH PLUG @ 8364' DRL PLG IN 7 MIN 300# PSI INCREASE RIH. C/O 30' SAND TAG 6TH PLUG @ 8907' DRL PLG IN 11 MIN 500# PSI INCREASE RIH. C/O 30' SAND TAG 7TH PLUG @ 9211' DRL PLG IN 8 MIN 400# PSI INCREASE RIH. C/O TO PBTD @ 9570' CIRC CLEAN, RD SWIVEL. L/D 20 JTS TBG, LAND TBG ON 282 JTS. ND BOPS NU WH, PMP OFF BIT LET WELL SET FOR 30 MIN FOR BIT TO FALL, TURN OVER TO FB CREW. WIND BLOWING TO HARD TO RIG DWN, SDFN KB = 18' 71/16 HANGER .83' 282 JTS 23/8 L-80 = 8928.71 POBS & 1.875 X/N = 2.20' EOT @ 8946.74' 315 JTS HAULED OUT 282 LANDED 33 TO RETURN TWTR = 11,584 BBLS TWR = 2000 BBLS TWLTR = 9584 BBLS
8/31/2010	7:00 -		PROD	33	A			7 AM FLBK REPORT: CP 2900#, TP 1950#, 20/64" CK, 56 BWPH, TRACE SAND, MED GAS TTL BBLS RECOVERED: 2987 BBLS LEFT TO RECOVER: 8597
	11:30 -		PROD	50				WELL TURNED TO SALES @ 1130 HR ON 8/31/2010 - 1510 MCFD, 1296 BWPD, CP 2850#, FTP 1850#, CK 20/64"
9/1/2010	7:00 -			33	A			7 AM FLBK REPORT: CP 2650#, TP 1875#, 20/64" CK, 46 BWPH, TRACE SAND, 1425 GAS TTL BBLS RECOVERED: 4223 BBLS LEFT TO RECOVER: 7361
9/2/2010	7:00 -			33	A			7 AM FLBK REPORT: CP 2575#, TP 1850#, 20/64" CK, 37 BWPH, TRACE SAND, - GAS TTL BBLS RECOVERED: 5225 BBLS LEFT TO RECOVER: 6359
9/3/2010	7:00 -			33	A			7 AM FLBK REPORT: CP 2550#, TP 1800#, 20/64" CK, 25 BWPH, TRACE SAND, - GAS TTL BBLS RECOVERED: 5948 BBLS LEFT TO RECOVER: 5636

US ROCKIES REGION

Operation Summary Report

Well: NBU 1021-12B4BS	Spud Conductor: 5/10/2010	Spud Date: 5/14/2010
Project: UTAH-UINTAH	Site: NBU 1021-1O PAD	Rig Name No: MILES-GRAY 1/1
Event: COMPLETION	Start Date: 8/13/2010	End Date: 8/30/2010
Active Datum: RKB @5,230.01ft (above Mean Sea Level)	UWI: SW/SE/0/10/S/21/E/1/0/0/6/PM/S/336.00/E/0/2,422.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
9/5/2010	7:00 -							WELL IP'D ON 9/5/10 - 1838 MCFD, 0 BOPD, 805 BWPD, CP 2452#, FTP 1599#, CK 20/64", LP 132#, 24 HRS

API Well No: 43047508570000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: ML 23612

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 1021-12B4BS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047508570000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 **PHONE NUMBER:** 720 929-6515 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0336 FSL 2422 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSE Section: 01 Township: 10.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 3/14/2011	☐ ACIDIZE	☐ ALTER CASING	✓ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

The operator requests approval to conduct wellhead/repair operations on the subject well location. Please find the attached procedure for the proposed repair work on the subject well location.

Approved by the Utah Division of Oil, Gas and Mining

Date: 03/15/2011

By: Dark K Quist

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Gina Becker	720 929-6086	Regulatory Analyst II
SIGNATURE N/A		**DATE** 3/14/2011

WORKORDER #: 88118803 2/3/11, revised 2/28/11

Name: NBU 1021-12B4BS – 1021-10 PAD
Surface Location: SWSE SEC.1, T10S, R21E
Uintah County, UT

ELEVATIONS: 5221' GL 5235' KB

TOTAL DEPTH: 9624' PBTD: 9566'

SURFACE CASING: 8 5/8", 28# J-55 ST&C @ 2237'

PRODUCTION CASING: 4 1/2", 11.6#, I-80 LT&C @ 9609'
TOC @ 810'

PERFORATIONS: Mesaverde 7510' – 9462'
Wasatch 5350' – 5567'

Tubular/Borehole	Drift inches	Collapse psi	Burst psi	Capacities		
				Gal./ft.	Cuft/ft.	Bbl./ft.
2.375" 4.7# J-55 tbg.	1.901	8100	7700	0.1624	0.02173	0.00387
4.5" 11.6# I-80	3.875	6350	7780	0.6528	0.0872	0.01554
8.625" 28# J-55	8.097	1370	2950	2.6223	0.3505	0.0624
Annular Capacities						
2.375" tbg. X 4 ½" 11.6# csg				0.4227	0.0565	0.01006

GEOLOGICAL TOPS:

1440' Green River
1714' Bird's Nest
2189' Mahogany
4717' Wasatch
7327' Mesaverde
9624' Bottom of Mesaverde (TD)

NBU 1021-12B4BS – WELLHEAD REPLACEMENT PROCEDURE

PREP-WORK PRIOR TO MIRU:

1. Dig out down to the 2" surface casing valve or to the valve on the riser off the surface casing.

2. Install a tee with 2 valves, with a pressure gauge and sensor on one valve.

3. Open casing valve and record pressures.

4. Install nipple and steel hose on the other valve, the relief valve,. Do not use hammer unions. No impact equipment or tools to be used for any of this installation. Extend hose and hard piping to a downwind location at least 100' from the wellhead. Consider installing a manifold so that vent area could be in two locations approx. 90 degrees apart from the wellhead.

5. Open the relief valve and blow well down to the atmosphere.

6. Make a determination of amount of gas flow, either by installation of a choke nipple, bucket test or other.

7. Shut well in. Observe for rate of build-up by utilizing sensor data. Do not build-up for more than 24 hours. Vent gas through the vent line and leave open to the atmosphere.

WORKOVER PROCEDURE:

1. MIRU workover rig.

2. Kill well with 10# brine / KCL (dictated by well pressure).

3. Remove tree, install double BOP with blind and 2 3/8" pipe rams, with accumulator closing unit and manual back-ups. Function test BOP system.

4. POOH w/ tubing laying down extra tubing.

5. Rig up wireline service. RIH and set CBP @ ~5300'. Dump bail 4 sx cement on top of plug. POOH and RD wireline service. TIH w/ tubing and seating nipple. Land tubing ±60' above cement. RDMO.

6. Monitor well pressures. If surface casing is dead. MIRU. ND WH and NU BOP. POOH w/ tubing.

7. Depending on conditions at wellsite, continue with either CUT/PATCH Procedure or BACK-OFF Procedure.

CUT/PATCH PROCEDURE:

1. PU internal casing cutters and RIH. Cut casing at +/- 30' from surface.

2. POOH, LD cutters and casing.

3. PU 7 3/8" overshot with 4 ½" right hand standard wicker grapple, 1 - 4 ¾" drill collar with 3 ½" IF threads, pup joint, manual bumper sub, and crossovers. If casing cut is deeper than ±30' utilize >7000 ft-lb torque pipe as needed. Pull a minimum of 10,000# to keep grapple engaged if cement top is high (<~900'). If cement top is low (>~900'), more weight will be required to put casing in neutral. Torque casing string to ±7000 ft-lbs, count number of turns to make-up, and document in the daily report. Ensure that tongs are safely anchored to rig and that all personnel are at a safe working distance from the tongs during torque-up and torque release. After initial make-up, place pipe torque to neutral and mark pipe. Place ±7000 ft-lbs on casing a second time, count turns, then return pipe torque to neutral and count turns. Repeat if torque-up turns do not equal torque release turns. Once torque-in equals torque-out, release overshot, POOH, and lay down.

4. TIH w/ skirted mill and dress off the fish top for approximately ½ hour. TOOH.

5. PU & RIH w/ 4 ½" 10k external casing patch on 4 ½" P-110 casing. Ensure that sliding sleeve assembly shifts ±3' and casing tags no-go portion of patch. NOTE: Shear pins will shear at 3500 to 4500 lbs.

6. Latch fish, PU to 100,000# tension. RU B&C. Cycle pressure test to 7,000# / 9,000# psi.

7. Install slips. Land casing w/ 80,000# tension.

8. Cut-off and dress 4 ½" casing stub.

9. NUWH. PU 3 7/8" bit, POBS and RIH. D/O cement and plug ~5250'. Clean out to PBTD (9566').

10. POOH, land tbg and pump off POBS.

11. NUWH, RDMO. Turn well over to production ops.

BACK-OFF PROCEDURE:

1. PU internal casing cutters and RIH. Cut casing at +/- 6' from surface.

2. POOH, LD cutters and casing.

3. PU 4 ½" overshot. RIH, latch fish. Pick string weight to neutral.

4. MIRU casing crew and wireline services. RIH and shoot string shot at casing collar @ ± 46'.

5. Back-off casing, POOH.

6. PU new casing joint with buttress threads and entry guide and RIH. Tag casing top. Thread into casing and torque up to ±7000 ft-lbs, count number of additional turns to make-up, and document in the daily report. Ensure that tongs are safely anchored to rig and that all personnel are at a safe working distance from the tongs during torque-up and torque release. After initial make-up, place pipe torque to neutral and mark pipe. Place ±7000 ft-lbs on casing a second time, count turns, then return pipe torque to neutral and count turns. Repeat if torque-up turns do not equal torque release turns. Once torque-in equals torque-out go to step 7.

7. PU 100,000# tension string weight. RU B&C. Cycle pressure test to 7,000# / 9,000# psi.

8. Install slips. Land casing w/ 80,000# tension.

9. Cut-off and dress 4 ½" casing stub.

10. NUWH. PU 3 7/8" bit, POBS and RIH. D/O cement and plug ~5250'. Clean out to PBTD (9566').

11. POOH, land tbg and pump off POBS.

12. NUWH, RDMO. Turn well over to production ops.

Logan High Pressure Casing Patches
Assembly Procedure

All parts should be thoroughly greased before being assembled.

1. Install all four Logan Type “L” Packers in the spaces provided in the Casing Patch Bowl. Refer to diagram provided for proper installation.

2. Install Packer Protector from the Basket Grapple end of the Bowl. The beveled end of the Packer Protector goes in first. Carefully push the Packer Protector through the four Type “L” Packers.

3. Align Shear Pin Holes in Packer Protector so that the holes have just passed into the counter bore at the Top Sub end, refer to diagram. The Packer Protector is provided with four Shear Pin Holes. Use only two holes, 180 degrees apart and install the pins.

4. Screw the Basket Grapple in from the lower end of the Bowl, using left-hand rotation. The Tang Slot in the Basket Grapple must land in line with the slot in the Bowl.

5. Insert the Basket Grapple Control into the end of the Bowl. Align Tang on the Basket Grapple Control with the Tang Slot of the Bowl and Basket Grapple. This secures the Bowl and the Basket Grapple together.

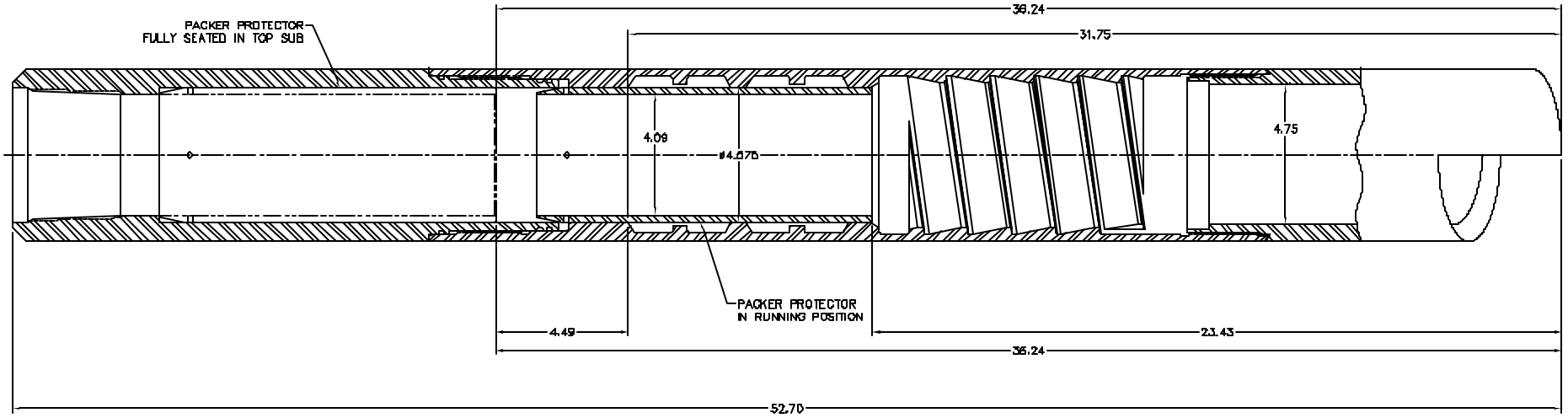
6. Install the Cutlipped Guide into the lower end of the Bowl.

7. Install O-Rings on the two five-foot long Extensions. Screw the first Extension into the top end of the Bowl. Screw the second Extension into the top end of the first Extension.

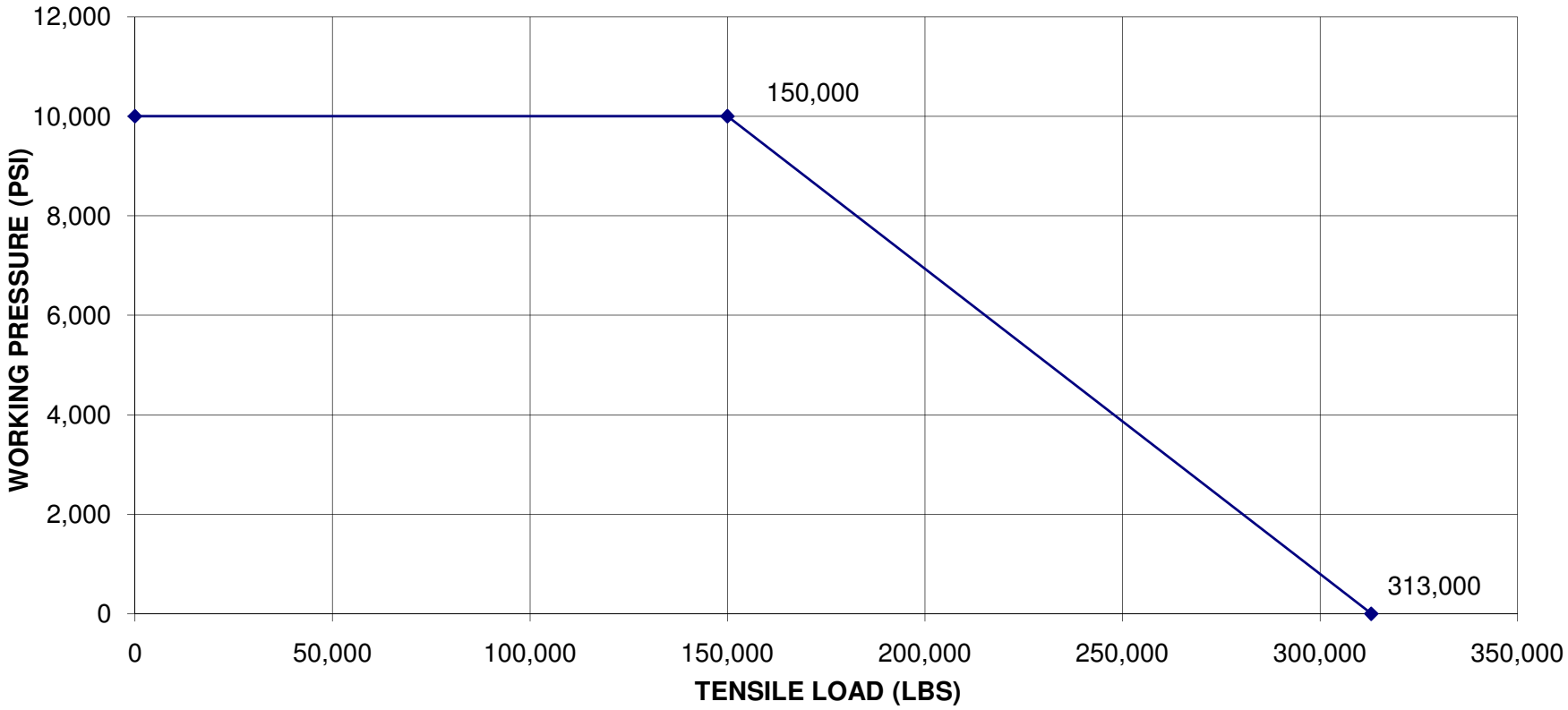
8. Install O-Ring on Top Sub. Screw Top Sub into top end of second Extension.

Follow recommended Make-Up Torque as provided in chart.

510L-005-001 4-1/2" LOGAN HP CASING PATCH



STRENGTH DATA FOR LOGAN 5.88" OD "L" TYPE CSG PATCH
4-1/2 CASING, 10K PSI MAX WP 125K YIELD MAT'L
LOGAN ASSEMBLY NO. 510L-005 -000



COLLAPSE PRESSURE:
11,222 PSI @ 0 TENSILE
8,634 PSI @ 220K TENSILE

Tensile Strength @ Yield:
Tensile Strength w/ 0 Int. Press.= 472,791lbs.
Tensile Strength w/ 10K Int. Press.= 313,748lbs.

DATA BY SLS 11/16/2009

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER:
ML 23612

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:
NATURAL BUTTES

1. TYPE OF WELL
Gas Well

8. WELL NAME and NUMBER:
NBU 1021-12B4BS

2. NAME OF OPERATOR:
KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER:
43047508570000

3. ADDRESS OF OPERATOR:
P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER:
720 929-6515 Ext

9. FIELD and POOL or WILDCAT:
NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
0336 FSL 2422 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: SWSE Section: 01 Township: 10.0S Range: 21.0E Meridian: S

COUNTY:
UINTAH

STATE:
UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	✓ CASING REPAIR
✓ SUBSEQUENT REPORT Date of Work Completion: 4/4/2011	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
☐ SPUD REPORT Date of Spud:	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	✓ OTHER	OTHER: Wellhead

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

The operator has concluded wellhead/casing repair operations on the subject well. Please see the attached chronological well history.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Andy Lytle	720 929-6100	Regulatory Analyst
SIGNATURE		**DATE**
N/A		4/5/2011

RECEIVED Apr. 05, 2011

US ROCKIES REGION

Operation Summary Report

Well: NBU 1021-12B4BS	Spud Conductor: 5/10/2010	Spud Date: 5/14/2010
Project: UTAH-UINTAH	Site: NBU 1021-1O PAD	Rig Name No: MILES 2/2
Event: WELL WORK EXPENSE	Start Date: 3/17/2011	End Date: 4/4/2011
Active Datum: RKB @5,230.00ft (above Mean Sea Leve	UWI: SW/SE/0/10/S/21/E/1/0/0/6/PM/S/336.00/E/0/2,422.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
3/17/2011	7:00 -		PROD	35	G	P		Travel to location rig up run in hole and pull spring fror 8954 pooh leave spring out for w/o rig down move to next well FLUID LEVEL 6000SEAT NIPPLE DEPTH 8954 SN TYPE X TD (Max Depth) JOB DETAILS SPRING AND/OR PRODUTION TOOL DETAIL Spring Out Used-StandardSpring In Drop Down Menu Stuck Spring Drop Down Menu Corrosion on Spring Drop Down Menu Bailed Acid Drop Down Menu Broken Spring Drop Down Menu Scale on Spring Drop Down Menu Production Tools Drop Down Menu Depth of Tool Other Hardware Drop Down Menu PLUNGER DETAIL Stuck Plunger Drop Down Menu Corrosion on Plunger Drop Down Menu Broken PlungerDrop Down Menu Scale on Plunger Drop Down Menu SOLIDS DETAIL Tight Spots Drop Down Menu Severity of Trash Medium Solid sample to turn in Drop Down Menu Solid Sample SourceDrop Down Menu Speculated Type of Solid Iron Sulfide Speculated Depth of Solid LOST SLICKLINE TOOLS Slickline Tools Lost Drop Down Menu Depth of Tool
3/31/2011	7:00 - 7:30	0.50	COMP	48		P		POOH TBG
	7:30 - 15:30	8.00	COMP	31		P		200 # TBG, 170# CSG, BLOW DWN WELL, PUMP 20 BBLS T-MAC TBG, 20 BBLS T-MAC CSG, NDWH, NU BOP'S, TEST BOP'S TO 3000#, UNLAND TBG, STD BACK 141 STDS, RU CUTTERS, PU GAUGE RING TIH TO 5300', POOH, PU 10K CBP, TIH SET AT 5295', POOH, PU BAILER, BAIL 4 SX CEMENT ON TOP OF 10K PLUG, POOH, RD CUTTERS, FILL CSG WITH T-MAC, PRESSURE TEST TO 1500# 10 MIN., BLEED OFF PRESSURE, SWIFN
4/1/2011	7:00 - 7:30	0.50	COMP	48		P		REPAIRING CSG

US ROCKIES REGION

Operation Summary Report

Well: NBU 1021-12B4BS	Spud Conductor: 5/10/2010	Spud Date: 5/14/2010	
Project: UTAH-UINTAH	Site: NBU 1021-1O PAD		Rig Name No: MILES 2/2
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Active Datum: RKB @5,230.00ft (above Mean Sea Leve	UWI: SW/SE/0/10/S/21/E/1/0/0/6/PM/S/336.00/E/0/2,422.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	7:30 - 17:30	10.00	COMP	33		P		RIH 4 STANDS TO CIRC WELL POOH STAND BACK, N/D BOP'S,CSG VALVES.P/U INTERNAL CSG CUTTERS AND RIH TO CUT CSG, 6.08".POOH L/D CUTTERS &SCG, PU OVERSHOT, TORQUE CSG TO 5,000#,10 TURNS, RU CUTTERS STRING SHOT 1ST COLLAR, BACK OFF 1 JT.PU 1 JT AND 10 FT PUP, TIH STING INTO COLLAR, TORQUE TO 7000#,37 3/4 TURNS, TURNS TOTAL TO TIGHTEN CSG. RU B&C PRESSURE , TEST TEST 1000# 15 MIN TEST 3500# 15 MIN LOST 50# IN 15 MIN TEST 7000# 30 MIN ALL PRESS,FOR 9 MIN LOST .GO ON VACUUM. R/U CUTTERS P/U 10K CBP RIH TO SET CBP @5245',POOH R/D CUTTERS R/U B & C TO PRESSURE UP FOR PROCEDURE, TES TES 1000# 15 MIN TES 3500# 15 MIN TES 7000# 30 MIN NO LOSS INSTALL C-21 SLIPS, CUT OFF CSG, DRESS, INSTALL TBG HD, PU POBS, DRAIN PUMP & LINES SDFW
4/4/2011	7:00 - 7:30	0.50	MAINT	48		P		ND BOP'S
	7:30 - 17:30	10.00	MAINT	31		P		TIH TBG, TAG PLUGS, 5245', 164 JTS, RU WEATHERFORD, BREAK CIRC, DRILL CBP, CEMENT PLUG, 5582' 176 JTS, CBP, TIH TO 9546', POOH LAY DWN 20 JTSTO 8946' ,BREAK CIRC, POBS,1300#, WEATHERFORD, BROACH TBG, LAND TBG, 282 JTS, 8928.71' ND BOP'S, NUWH, RTP. CALLED CDC 2:40 PM BECKY JTS RAN 282 JTS 8928.71' KB 15.00' HANGER .83' XNSN 1.875" 2.2' EOT 8945.74' WTR PUMPED 440 BBLS WTR RCVD 390 BBLS

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

Name of Company: **KERR-McGEE OIL & GAS ONSHORE, L. P.**

Well Name: **NBU 1021-12B4BS**

Api No: **43-047-50857** Lease Type: **STATE**

Section **01** Township **10S** Range **21E** County **UINTAH**

Drilling Contractor **PETE MARTIN DRLG** RIG # **BUCKET**

SPUDDED:

Date **05/10/2010**

Time **4:00 PM**

How **DRY**

Drilling will Commence:

Reported by **GARRETT EATON**

Telephone # **(435) 219-1439**

Date **05/11/2010** **Signed** **CHD**

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